AIR TRANSPORTATION

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JUNE 1946

In This Issue

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(FOR SCHEDULES SEE PAGE 56)

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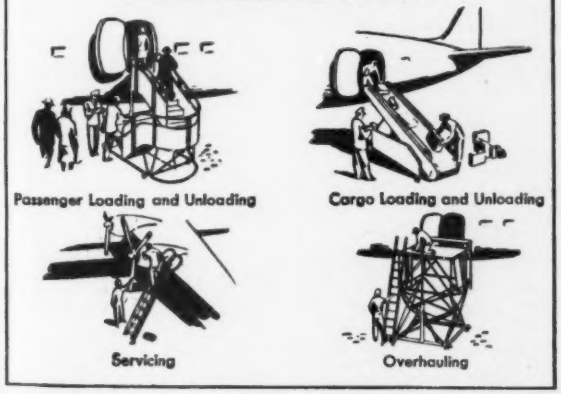

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A SPECIAL ceremony and sky show will dedicate the new $2,000,000 airport at **Mansfield, Ohio,** on July 20 and 21.

The first race horses ever to be flown coast-to-coast were transported in a DC-3 by **American Air Express.** The horses, Uleta and Chakoola, made the trip from Roosevelt Field, Long Island, to Inglewood, California, in 16 hours.

Collector rings and allied exhaust system accessories for the Convair 240 airliners will be provided by the **Ryan Aeronautical Corporation.** The initial order is for $100,000.

Air Cargo Transport Corporation has received a permanent right of entry into Haiti, and will use the facilities at Bowen Field, Port-au-Prince. A similar right of entry has been granted by the Venezuelan Government, with landings to be made at Maracaibo, Maiquetia, and Maturin.

The resignation of **Stokeley W. Morgan** as Chief of the Aviation Division of the Office of Transport and Communications Policy has been announced by the State Department.

As of June 15, sportsmen flying to hunting, fishing, and skiing grounds served by **Western Air Lines** may carry 10 additional pounds of visible sports equipment.

Air Material Command Headquarters at Wright Field has announced the establishment of the **Air Institute of Technology.** It is initially set up to graduate from 200 to 350 officers yearly.

It is reported from **Egypt** that negotiations for the purchase of American air installations in Cairo are nearing completion.

A new technique in long-range weather forecasting has been developed by the Pacific-Alaska Division of **Pan American World Airways.** Whereas forecasts were made 24 hours in advance, the advanced techniques now make it possible to forecast weather up to 15 days in advance.

John P. Gaty, vice president and general manager of **Beech Aircraft Corporation,** has announced the appointment of **Ruthrauff and Ryan, Inc.,** as the company's advertising agency. Beech is instituting a wide campaign to promote its postwar aircraft.

According to **General Carl A. Spaatz,** the Army Air Force's new B-36 bomber will have a range of 10,000 miles—carrying an atomic bomb.

Arthur S. Drakeford, Australian Minister for Air and Civil Aviation, has expressed the hope that the proposal for a world airline will be studied by PICAO. The idea was first advanced at the Chicago Air Conference in 1944.

VOL. 8 No. 6

AIR TRANSPORTATION

[REG. U. S. PAT. OFF.]

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June 1946

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THE COVER—A soon-to-be familiar sight at the airports of the United States and other countries: the Martin 202, high-speed, 40-passenger, luxury airliner. This twin-engined, low-wing transport is designed for low-cost travel over ranges where four-engined transports cannot be operated economically.

JOHN F. BUDD, *Editor and Publisher*

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Publishers of CUSTOM HOUSE GUIDE *and* AMERICAN IMPORT & EXPORT BULLETIN

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Publication Office:
TEN BRIDGE ST., NEW YORK 4, N. Y.
Phone: WHitehall 4-2893

Business Manager: B. L. WEST
Managing Editor: RICHARD MALKIN
Advertising Mgr.: HENRY W. FISCHER

Mid-West Representatives:
WYATT MACGAFFEY and F. R. JONES
228 North LaSalle St., Chicago, Ill.
Phone: STate 5096

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Pacific Coast Representatives:
ROBERT H. DEIBLER & ASSOCIATES
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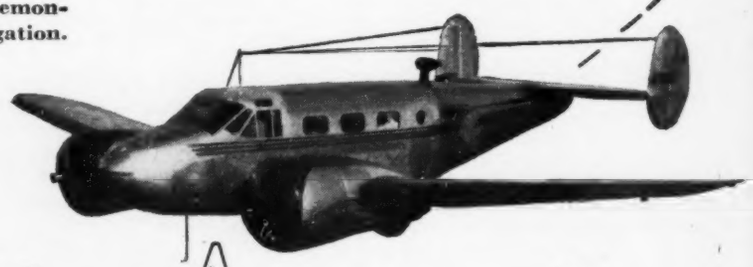

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Stuart G. Tipton

"We feel that the present unrest among the steamship companies regarding air transportation is not much different from the unrest which existed among the horse and wagon operators during the advent of the automobile." This article is an answer to the steamship lines by an ATA official on the sea-air question.

Seven Points on
SEA-AIR

By STUART G. TIPTON, *General Counsel, Air Transport Association of America*

WE read with interest the presentation of the "side" of the steamship lines in the "controversy" regarding ownership and operation of airlines by sea transportation combines.*

We in the airlines don't appreciate being sandbagged into anything. We didn't start this "controversy." Now that the steamship people have presented their arguments, however, we would like to present the logic of our case as opposed to what we consider a lack of it in theirs.

Neither of us is going to settle any such argument. It will be settled, if necessary, by the Congress of the United States, representing the people of this country. We don't want the people to be misinformed.

There always are those who want to move in on a good thing when the heartbreak of early experimentation and the years of progress in the developmental stages have been passed. The tune sung by most of the steamship advocates in the early days of aviation was much different from the one they are singing today.

They weren't certain then that the airplane would become competition for the steamship. But the men of aviation were sure. And they backed up their dreams with accomplishment. They suffered through the pangs of disappointment and they came out on top with a form of transportation which is coming into its own.

And now the steamship companies want to cut themselves a slice.

That isn't pretty language, but it is so basic a fundamental in this case that we wanted AIR TRANSPORTATION readers to realize it first of all. We would like to take the discussion of this subject as presented by the steamship lines in the foregoing issue of AIR TRANSPORTATION point by point:

I

The steamship lines bemoan the fact that the Government has been issuing permits to foreign airlines for overseas operations to the United States, while

**Sea-Air Operation and World Trade*, by Eugene Leuchtman, published in AIR TRANSPORTATION last month.

several United States shipping companies have been denied the right to operate planes.

The airlines feel that this is an extremely weak argument. As in the shipping field, the Civil Aeronautics Board has determined that the United States should be represented in the air transport field by the strongest possible airline enterprises. In this determination they have concluded quite naturally that this service can best be rendered by the established airline operators.

II

The steamship lines point with pride to the devotion of "great expense and much effort over a long period to promote overseas passenger traffic." They also claim to have established offices and agencies on a world-wide scale with experts dealing in travel and foreign trade problems.

The airlines believe it is necessary to consider that since air transportation and sea transportation are competitive, the devotion of this time and effort to the promotion of overseas traffic on the part of the steamship companies is merely a further indication of the necessity for not permitting any unholy mixture of the control of the two types of transportation. Their experience has been obviously and purposely and rightfully in the promotion of sea transportation, and it is hardly within the realm of belief to surmise that this world-wide organization is now ready to completely switch its allegiance and become air-minded. The use of this personnel and these facilities in connection with the spread of air travel is extremely doubtful, both as to theory and as to practicality. We simply can't expect air transportation to conform with sea transportation merely for the purpose of making use of steamship ticket offices with a hundred years of history.

It is generally known that a high proportion of the service facilities which have boosted American travel business during past years is under the control of independent travel agencies which, according to their own reports, are just as anxious to serve air travelers as they are to serve ship travelers. The requirements for world-wide air transportation ground facilities are almost completely different from those of steamship lines, and they must be treated as such.

III

The steamship lines claim that the American shipper is being hamstrung by the fact that he has no opportunity of utilizing the "modern technologies of flight" because of the lack of steamship control of air facilities. They also cite a public opinion poll which reveals that 50 percent of all overseas travel in the near future will be by airplane, and that the loss of this traffic would be a devastating blow to American shipping.

The airlines can see no particular connection between these two statements which are spoken in the same breath. The American shipper certainly does have every opportunity of combining the use of sea and air transportation in any manner in which he sees fit under the system of free competition which exists and which will be developed. He has a much more facile opportunity of utilizing these systems under the present system than he would have if he had to deal solely with steamship companies both for sea and air transportation.

The fact that the steamship companies have discovered that the airlines are going to take over at least 50 percent of the overseas passenger traffic in the near future is an encouraging thought to us and merely indicates that the public is becoming more and more conscious of the advantages of air travel.

IV

The steamship companies go on to point out an instance in which an American businessman "pressed for time" could ship his car and his merchandise or samples ahead by steamer, spend another week at his desk, and then fly to his foreign destination. They also point out the possibility of transfer from ship to plane or plane to ship to suit the traveler's convenience at any point on his journey, but they claim that he can do this conveniently only "if the ship and plane are under one management."

The airlines, looking into the future on a world-wide scale, agree with the steamship companies that making these practices available to the American businessman is of the utmost convenience, but they also know that the possibility of these conveniences is already here and in practice, and will be expanded and improved. It is difficult to believe, when one considers the present and proposed vast expansion plans of the nation's airlines, that this improved travel convenience would only be available if the ship and plane were under one management. This statement would lead us again to believe that perhaps the steamship lines are just a little interested in the possibility that the evolution of air travel may reach a point where there will be little necessity for the traveler to make use of the steamship at all, and that he may find it possible and even more convenient to ship his automobile by plane as well as himself.

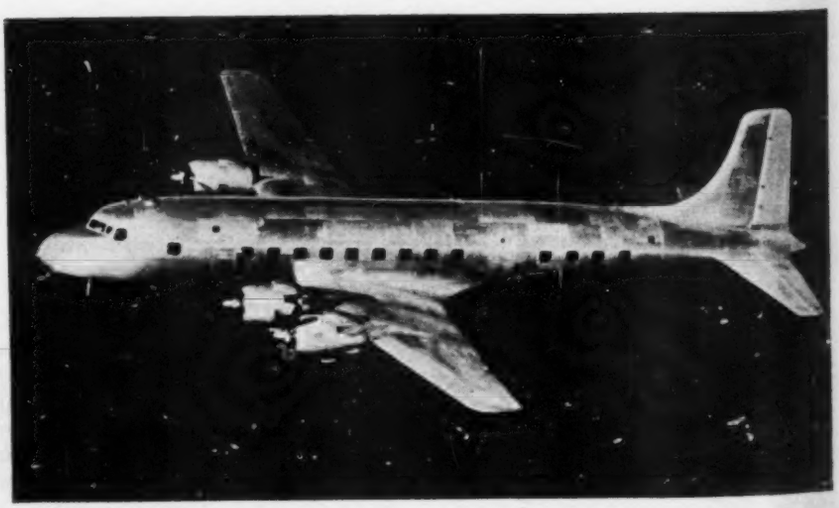
As for the argument of the steamship companies—to the effect that unless the American shipping lines can give the businessman these travel advantages, the foreign flagship and plane will carry the American passenger—we say that any combination of services on the sea or in the air is possible on American facilities and the U. S. airlines are willing and eager to cooperate with the steamship companies in providing whatever combination service the public desires.

V

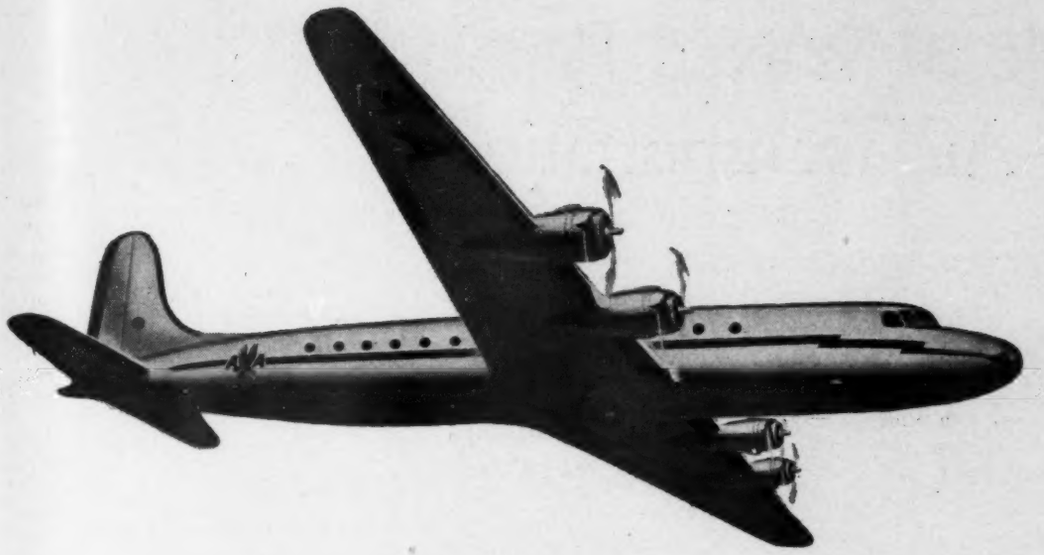
The steamship lines state that the airlines' objection to combined ownership of planes and ships is that the shiplines might stifle the development of air transportation. They deny the possibility of such a result.

The airlines' answer to that one is that control of air transportation by steamship companies would contribute to a retarding of air transport progress, because it would seem obvious that a

(*Concluded on Page 34*)



SEA AND AIR ARE DIFFERENT—"Transportation in a 300-mile-per-hour airplane is an entirely different commodity from that provided by an 18-knot steamer, just as different as a silk dress and a hay rake," says Tipton. Above is shown the Douglas DC-6.



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AMERICAN AIRLINES

THE NATIONAL AND INTERNATIONAL ROUTE OF THE FLAGSHIPS

The Role of Waxed Paper In Air Transportation

BERMUDA SCENE—Bermuda lilies, always excellent air cargo items, shown as they are cut in a native field. Flower growers in Bermuda plant the lilies to coincide with the Easter season.

PACKING OPERATION—Workers shown packing lily buds in special corrugated paper containers lined with waxed paper. A short while later the buds will be aboard a plane bound for markets in the United States.

AN old household standby — waxed paper—is playing an important role in the success of three phases of commercial air transportation:

1. The transportation of premium-quality flowers from Bermuda and other distant lands to all parts of the United States at all times of the year.

2. The shipment of fresh fruits and vegetables all year long to Eastern and Northern markets.

3. The serving of zestful, appetizing meals to passengers on cross-country and trans-oceanic flights.

Flowers were one of the first commodities to "take the air." Because of their short-lived freshness, flowers must be transported in the shortest possible time. And because they are lightweight, they can be shipped at extremely low air freight rates. Florists in Bermuda, the Southern and Western states were quick to take advantage of low air transportation rates to distribute premium-quality flowers to markets in the East and North where they found a ready, profitable market.

In recent years, thousands of servicemen remembered their loved ones at home with orchids from Hawaii. Packed in durable cartons and "orchid straw"—a shredded waxed paper—these tropical flowers were flown to the United States in record time and delivered fresh, fragile and breathing romance.

Pan American World Airways reports it has been successfully transporting Bermuda cut lilies to this country for the past few years, particularly during the Easter season. Bermudians plant the lilies to coincide with the actual Easter season; a few days before Easter the flowers are cut, packed and shipped to the United States. Growers have a schedule of Pan American *Clipper* departures and they start cutting the lilies and packing them about 24 hours before each scheduled departure.*

At the time of cutting, the lily is in a very tight bud form and does not flower until several days after reaching this country. The buds are cut with a rather short stem—six to eight inches with varying number of blossoms—and then placed in a corrugated paper container, lined with a green waxed paper which keeps them moist and fresh en route. The containers are light-weight —12 inches long, six inches wide, and about one inch deep.

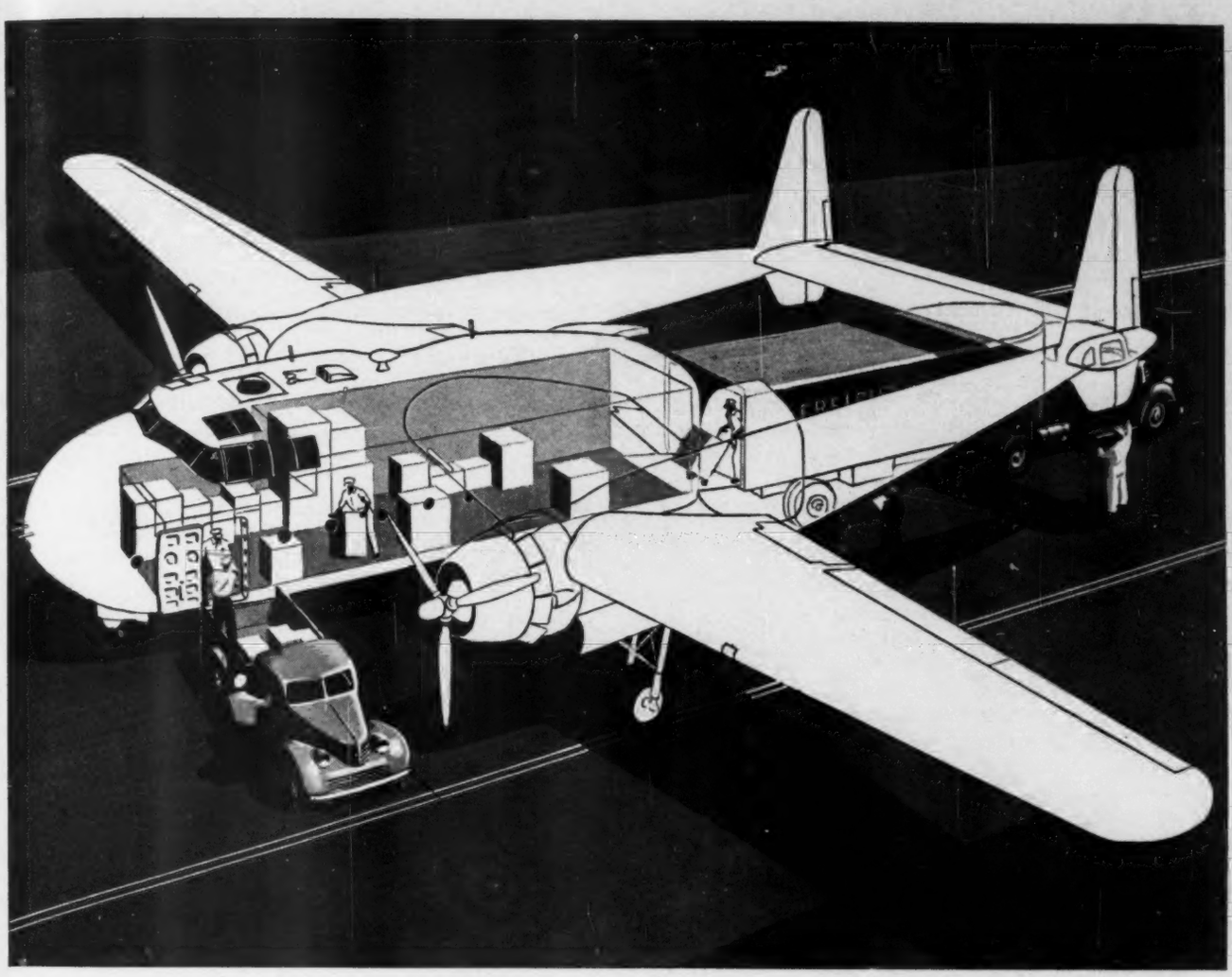
After the flowers are packed, the grower transports his lilies to the point of departure and they are loaded onto a *Clipper* shortly before flight. The flight time from Bermuda to New York is a little over three hours, and the total elapsed time from picking to delivery to the florist is approximately 24 to 30 hours.

The transporting of fresh, field-ripened fruits and vegetables to Eastern and Northern markets in off-season months is growing by leaps and bounds. And the housewife's dream of being able to get country-ripened fruits and vegetables, washed and cleaned, ready for cooking will soon be realized, for West Coast and Gulf Coast farmers are planning to clean and wash vegetables on their farms, pack them in specially prepared waxed paper bags, and air freight them to Eastern markets. The fruits and vegetables will be packed in lightweight corrugated boxes to minimize freight cost and prevent bruising.

On cross-country flights, passengers now enjoy hot, fresh meals—thanks to the old kitchen favorite—waxed paper. Because of the limited galley space,

(Concluded on Page 36)

* *See Flying Flowers in April, 1945, issue of* AIR TRANSPORTATION.



The INSIDE Story of the Packet

Speed creates profits for air cargo operators—speed *on the ground* as well as speed in the air.

Fairchild engineers, planning the Packet to carry cargoes that no other transport can handle—made loading and stowing easy. They *squared* the fuselage. They gave it straight sides, a level floor and a horizontal ceiling. They split the fuselage tail into two doors which open the full width of the hold. They placed another door forward for access to up-front space.

The result is an air freight transport that is *easier* to load than a boxcar.

Cargo can be walked directly from truck or loading platform straight into the hold—no right angle turns—to its allotted place on the floor. Straight-sided cartons snug up to the Packet's straight-sided walls like building blocks. Cases can be lashed down quickly to the recessed tie-down fittings placed every 20 inches on a floor designed for heavy loads.

Here, then, are facilities for speed *on the ground*, vital factor in the distribution of perishables; a major element in the establishment of profitable air cargo operations.

That is the inside story of the Packet. Fairchild engineers have again achieved "the touch of tomorrow" in a plane built expressly for the dawning age of "flying freight."

Fairchild Aircraft

Division of Fairchild Engine & Airplane Corporation, Hagerstown, Maryland

UP Goes Safety . . .

DOWN Go Insurance Rates

By Holgar J. Johnson
President
Institute of Life Insurance

Today the air traveler is safer than the automobile traveler, and just as safe as the man who journeys by rail—and this is reflected in the underwriting acceptance of the aviation risk.

FILES of life insurance underwriters offer an interesting sidelight on the progress of safety in air travel. The interest of existing policyholders requires that special attention be given to underwriting when some special hazard is involved—lest a select group be favored over all policyholders. The underwriter, viewing any new risk and applying his underwriting skill in meeting that risk, must necessarily give a fair, sound, unbiased study to the actual hazard involved, in the interests of all policyholders.

This has been true in other fields of transportation. When the railroad first arrived, it was a new and special hazard that resulted in underwriting restrictions. In those days, somewhat over a century ago, progress did not materialize as rapidly as today and as a result it took longer for those restrictions to be lifted. As a matter of fact, it was only relatively few years ago that sharp restrictions on those working on railroads were lifted, after nearly a century of safety progress. The railroad brakeman, for example, did not feel relief from heavy extra premiums, if accepted at all, until safety devices replaced top-braking, hand-coupling, and such hazardous activities.

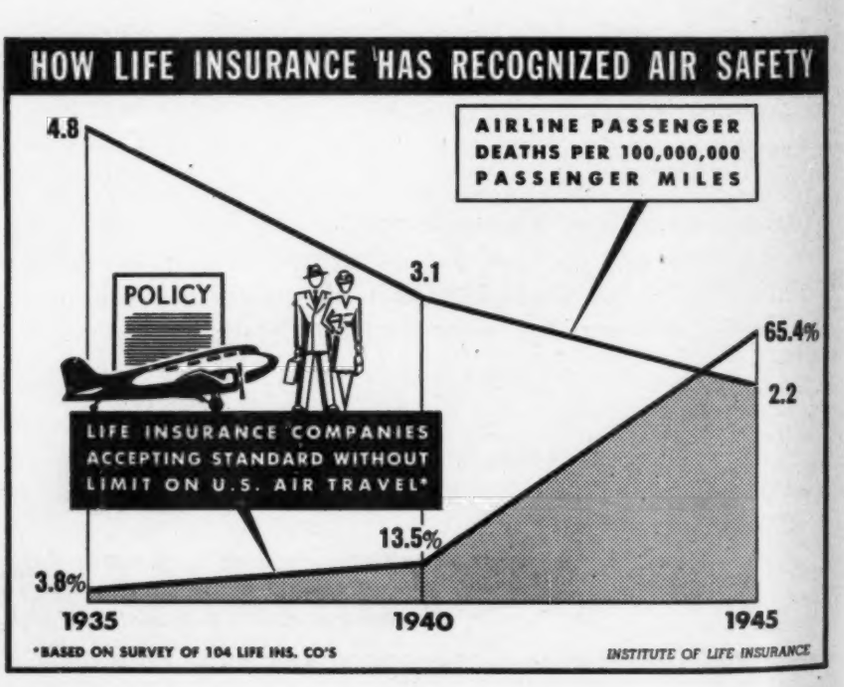
Automobile transportation was in a different category. Its growth was relatively rapid and was reflected through a cross-section of the population as a whole. The risk was evenly spread among all types of applicants. There was no fair means of differentiating between the automobile traveler and others, as practically everyone was subject to the chance of riding in a motor car. It was a mass risk, without confinement to area or groups of people.

Air travel, on the other hand, quickly loomed as a special hazard. Especially in the earlier days of air transportation, the passengers were, on the average, from the higher income brackets and, on the average, represented large life

Holgar J. Johnson

insurance programs. In 1926, when the first air transport took to the air, these passengers were relatively few in number and even in the aggregate did not represent any major life insurance hazard. The rapid growth of air transportation, however, aroused the immediate attention of life insurance underwriters. By 1930, the annual total of passengers had increased to more than 400,000. With the majority of these persons representing higher insurance brackets and rather logically seeking greater insurance protection prior to engaging in travel by the new medium, the insurance companies were greatly concerned lest their millions of policyholders be adversely affected by the experience on these newcomers, still few in relation to the total number of policyholders, but now comprising a sufficient group to influence the overall experience, if the new risk proved a heavy loss producer.

In 1930, the fatality rate among airline passengers was 28.6 per 100,000,000 passenger-miles. And in that year, very few life insurance companies would accept, for the issuance of new



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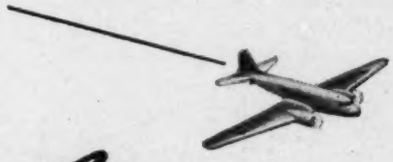

BRANIFF *Air*-FREIGHT

Phone Braniff Airways office at any city shown on this map, or write Braniff Airways General Traffic Office, Love Field, Dallas 9, Texas.

policies without restriction, persons who anticipated extensive air travel.

By 1940, air passengers had increased to nearly 2¾ millions—the air fatality rate had dropped to 3.1—and a recent survey shows that nearly one-seventh of the life insurance companies would then accept passengers on United States transports regardless of the amount of airline travel they intended to undertake. In addition, nearly 53 percent of the companies would accept at standard rates, persons who contemplated a reasonable amount of United States transport passenger travel, the "reasonable" then meaning about 20,000 miles of flight annually.

By the close of 1945, when the number of air passengers reached more than 5,000,000 annually and the air passenger fatality rate dropped to 2.2, more than 65 percent of the life insurance companies surveyed were accepting without limit and without restriction, at standard rates, applicants who contemplated unlimited air passenger travel within the United States. So sweeping had been the liberalization that even persons contemplating unlimited air passenger travel worldwide, on the transoceanic airliners could, by the end of 1945, secure life insurance policies at standard rates and without limit, with 51 percent of the companies. This was a wholly new form of travel and an entirely new risk, not existing in 1930 and only in its infancy in 1940. And yet last year there were nearly as many international air travelers as the total of domestic air passengers in 1930, when the air travel hazard loomed so large for the underwriters.

Even that does not tell all the story. In addition to the 65 percent accepting domestic air passengers without restriction, another 22 percent of the companies surveyed now accept them if the contemplated air travel is "reasonable"—usually meaning some 50,000 miles annually now. In addition to the 51 percent accepting worldwide air passengers without restriction, another 11.5 percent of the companies usually regard 50,000 miles annually of such travel as reasonable, making 62.5 percent which will accept world air travelers either without limit or with something like 50,000 miles of travel as the limit.

Thus underwriting acceptance of the aviation risk is a direct reflection of the increased safety record in air travel. *Today, the air traveler is safer, from the death standpoint and per passenger-mile, than is the traveler by automobile. And, if the accidental injury rate be included with deaths, he is just about as safe as on the railroad.* With some of the safety factors now under consideration brought into operation, such as automatic blind landings, radar and other developments of the war years, it is possible that the air accident rate can be brought down much lower yet, and if so, life insurance underwriting will reflect it.

NEW YORK AT NIGHT—Radar Scope photograph of New York City taken from a B-17. Mr. Johnson writes that "with some of the safety factors now under consideration brought into operation, such as automatic blind landings, radar and other developments of the war years, it is possible that the air accident rate can be brought down much lower yet, and if so, life insurance underwriting will reflect it." In the above picture, the outline of Manhattan Island clearly shows the Hudson River with its shipping docks. On the New Jersey side (left) the Hackensack River is plainly visible. At the time this photograph was taken, the plane was directly over the spot in the center of the circle.

The issuance of life insurance to pilots and crew members is, perhaps, an even better reflection of this safety progress in the air, although it involves a relatively small group, rather than millions, as in the case of passengers. When commercial air transportation started in 1926, it was practically impossible for crew members to secure life insurance protection at all. In the early years, only a few companies would issue policies to such persons, charging them from $20 to $50 extra per $1,000 of insurance. By 1940, more than half of the companies surveyed would insure crew members of United States transports at an extra premium then usually about $25 per $1,000. Today, 80 percent of the companies will insure United States transport crew members at an extra premium of usually about $5 per $1,000.

Life insurance companies have given the subject of air transportation long and careful study, a special committee of their actuaries having worked continuously since 1929 in their efforts to measure adequately the risk involved and the progress of safety in the air. They are still observing air travel, even though it has arrived as a major unit in the nation's transportation system, and continued liberalization in life insurance policies, from the air travel standpoint, will follow the pattern of air safety as rapidly as conditions permit. The life insurance liberalization since prewar days is interesting testimony as to the progress made in these few years by those engaged in air transportation. It is only 20 years since air transportation really began as far as transport passengers are concerned, and yet air travel risk is accepted as a standard risk by the majority of the life insurance companies today.

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AIRPORT to AIRPORT or DOOR to DOOR

TWA delivers either way—with all the speed and frequency that shipping by air implies.

What's more, for your convenience, TWA's high-frequency transcontinental passenger schedules—as well as TWA's Skyfreighter service—all carry airfreight.

Also, by special interline arrangement with Continental Airlines, the same double service is available between all points on Continental and TWA routes.

Whether your business demands the convenience of local pickup and delivery—or the economy of city-to-city transportation—you'll find that TWA has tailored its efforts to suit the need.

And the cost is usually less than most inquiring shippers expect. See for yourself—call your local TWA Airfreight office for schedules and rates, including special rates for shipments of 3,000 lbs. or more.

TWA International Air Express anywhere in IRELAND, FRANCE, SWITZERLAND and EGYPT. And to major points in ITALY, GREECE and SPAIN.

Watch for Announcements of further developments in TWA Airfreight Service—Coming soon!

Accent on KNOW-HOW

NOW take the case of Meteor Air Transport, Inc., a newly organized air cargo line operating on a charter basis. Eighty percent of its personnel were plucked right out of the ranks populated by GIs, but it does not want to be known as a GI airline.

Not that Meteor has any antipathy toward former servicemen in the air transport business. The airline prefers to "bank on the knowledge and experience acquired before the war," using the war period to consolidate their efforts as a team.

MAT, as the airline prefers to be called, bears a lot of meaning to the men who make up the company. Formerly it meant Military Air Transport, where most of the new airline's personnel served—but, in the words of William Rome, general traffic manager: "That is as far as the GI tradition goes."

William L. Rome

PLENTY OF CARGO—Cargo handlers shown loading one of Meteor Air Transport's cargoplanes with 7,200 pounds of tomato plants. Flown from Georgia, the cargo was unloaded at Teterboro Air Terminal and trucked to Milton, New York.

FLYING MUSHROOMS—Captain Elmer Jose checking over a 7,000-pound shipment of mushrooms transported from Teterboro, New Jersey, to a large city in the Midwest.

The organization of Meteor was not one of those now familiar hop-skip-and-jump affairs. Plenty of planning on operations, flight, traffic, communications, accounting, and the myriad other details part and parcel of the air transport business, went into the making of MAT, long before the company purchased a single airplane. And when the first C-47 was delivered, MAT had tucked away in its vest pocket definite commitments for cargo, assuring no deadhead hauls.

"We worked out the details of what ships were best suited to the type of business we wanted, and then went after those ships," said Rome. "Many a seemingly ideal C-47 was turned down before we finally got what we wanted. The results can be seen at Teterboro Air Terminal any day.

"Some of the results of this painstaking selection by Bob Morrow, who heads operations, and Chuck Stamp, who directs maintenance, have brought uniform equipment and parts, the biggest cabin area yet obtained in C-47 equipment, and a cooling system that weighs less than 30 pounds, yet is ideal for keeping cargoes at just the right temperatures specified by the shippers."

According to Rome, MAT is "the first and only charter company to compile manuals for operations, maintenance, and traffic, and to operate according to these manuals." He stated that the airline operates under the same rigid rules as those set up by the

(*Concluded on Page 26*)

Every Air Cargo Shipment Demands

KNOW-HOW

It's no secret that many firms are faced with complex air cargo shipping problems

WHY?

The answer is a very simple one . . .

INEXPERIENCE

Manhattan's 63 years of **experience** in packing and shipping all types of merchandise speaks for itself . . . The **Know-How** of our **Air Cargo Packing and Distribution Division** will save the shipper of air-borne goods both time and money.

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This Business of

AIR TRANSPORTATION

By **L. WELCH POGUE,** *Retiring Chairman of the Civil Aeronautics Board*

Glamour is one thing and business another. Mix the two more thoroughly, with accent upon business, and you've got an economic giant.

AVIATION is still glamorous and exciting. I hope and believe that in many ways it always will be. There is that about it which lifts the spirit of a man as well as his body. The urge to fly cannot be permanently dulled by repeated experiences — in fact, the reverse is true.

Air transportation is an especially significant part of aviation. Possessing all the glamour of flight, it has the power to exert major economic, political, and social influence on national and international life. In exerting this influence, it is in the slow process of becoming a business. Note well the word *slow* and the tense.

Compared with other prominent businesses, air transportation is still small; the possibilities of the air for the world traveling and shipping public is something we make speeches about—net yet actual realities; and the efficiency of air transportation derives its content at the moment more from speeds attained through technology than from the development and application of business principles tested by experience and found suitable to this new form of transportation.

Business efficiency will come, but there is a long road ahead before we can say with solid conviction that air transportation has become a large and altogether efficiency conducted business. In the process, let us all hope that this infant business prodigy may shake itself loose just as much as possible from the apron strings of its excessively, zealous nursemaid — nationalistic poltical pride. Until it achieves a good measure of such independence, our prodigy in technology will remain stunted in every other way.

One of the most encouraging signs that air transportation is becoming a business exists in a situation which may seem to be a paradox. Civil aviation—and particularly air transportation—is, at the same time, becoming of greater importance to military departments and less within their proper jurisdictions. It is of greater importance be-

L. Welch Pogue

cause as a means of future transportation it has such enormous significance. Military departments are vitally interested in all forms of transportation, communication, and, in fact, in all industrial resources in our present world. Civil aviation is much less within the proper jurisdiction of military departments because the striking arm of the military, so far as the air is concerned, has become so highly specialized as to be different in kind from civil aviation. What with the buzz bomb, the guided missile, the rocket, the specialized fighters and bombers, the striking arm has become in general what I have termed a sort of "flying ordnance." This vitally important trend has been stated recently in clear and forceful terms by Vice Admiral Arthur W. Radford, United States Navy, Deputy Chief of Naval Operations for Air:*

" . . . We are on the threshold of a new development in aviation which I believe relatively few persons have recognized. (It is) the divergence . . . between military aviation and commercial aviation of the future. In the past the two were largely synonymous in that the equipment, methods of operation, in fact, all the general problems were closely related. While not invariably true, it was also at least approximately true that aircraft designs for one purpose were adaptable for the other. . . . This is not so true now as it used to be, and it is my belief that it will become less and less true as time goes on . . . the relationship of the military services and commercial aviation will more closely conform to the interests we in the military establishment have in industry in general. . . . In my opinion . . . commercial and military aviation of the future will be so dissimilar that the close, in some cases almost paternal, interest which we have taken in commercial aviation will be a thing of the past and commercial aviation will, in the future, be almost on its own. . . ."

Admiral Radford's statement is evidence that naval people are publicly recognizing that air transportation is functionally no more military than is electricity, for example, or merchant boats on the ocean. It is becoming a business. Its days of apprenticeship are over.

It is impossible to tell how rapidly air traffic would be increasing if the world were enjoying normal times. The economy of our planet is so dislocated, destruction and suffering are so wide-

* Postwar World Aviation, *an address delivered before the Chicago Federated Advertising Clubs, Chicago, Illinois, April 25, 1946.*

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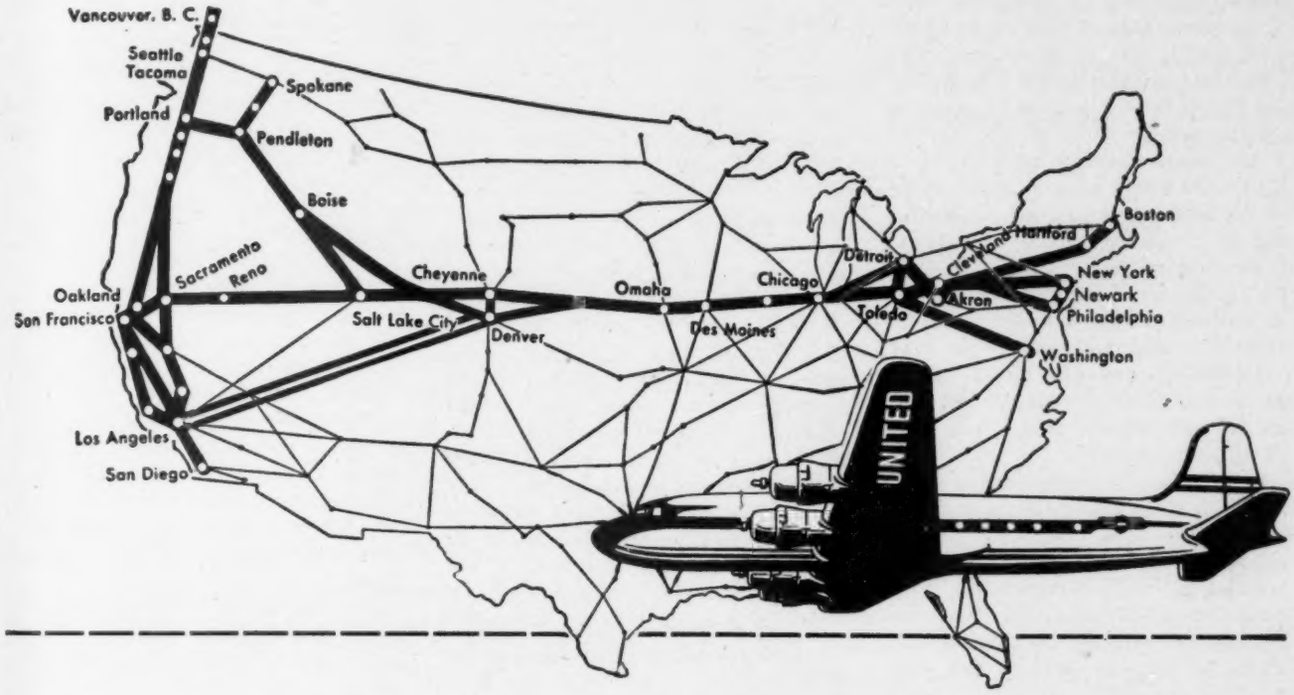

WHEN continued production depends on the prompt arrival of materials, the wise traffic man knows that the *fastest* way to ship very often is also the *cheapest.*

That's why more and more shippers are turning to United Air Lines AIR FREIGHT SERVICE—coast to coast, day and night across the short, direct Main Line Airway. They're using United Cargoliners to save time, money and delay.

United's new "low-priced" freight service—with reductions as much as 50% from previous tariffs—applies to every kind of shipment.

United's staff of experts will be pleased to explain how AIR FREIGHT SERVICE can be applied to your particular problem. Ask about United's pickup and delivery system in major markets strategically located across the Main Line Airway.

Remember, almost everything can now go by air.

Look at the map. Inter-city and coast to coast, United can serve you anywhere. Why not call a United AIR FREIGHT representative today? Or write for your copy of United's new INFORMATION BOOKLET on AIR FREIGHT SERVICE.

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spread, and reconstruction of so much of the world is marking time for lack of necessary materials as to make the present seem grim indeed.

But if we should take domestic air travel in the United States as being an index of free travel habits, we see a striking curve of growth. During 1945 United States air carriers performed 3½ billion passenger-miles in domestic air transportation. The increase in 1945 over 1944 exceeded 1,240,000,000 passenger-miles. This increase alone was considerably greater than the entire volume of domestic business performed in 1940. Six and one-half million people rode the domestic airlines in 1945 as compared with 2,800,000 in 1940. Either figure is but a fraction of one percent of the number of persons carried by the railroads in the United States in each of those respective years.

And to air traffic growth trends in the United States as an example, again we see other signs that air transportation is becoming a really significant business in national economy. In 1945 we carried nearly 68 million ton-miles of mail; in 1938 the figure was only about 7½ million ton-miles. In 1938 our domestic carriers handled 2,182,000 ton-miles of express, while in 1945 the freight and express figure was over 23 million ton-miles.

In addition, the attention given to freight-by-air is steadily increasing with good results. The Post Office Department is studying the possibilities of lowering air mail postage rates, both domestic and international, and the carriage of all first class mail-by-air, where its time of delivery can thus be advanced. Consideration is also being given to the establishment of an air parcel post.*

We have witnessed recently, and now are seeing, a unique effort to provide for the future development internationally of this comparatively small and precocious enterprise, even before it has yet become a real business. What we most need now, I believe, is the right attitude toward this infant business. I believe that by and large we all have it and that we all want to see the breathtaking benefits of air transportation made available to the people of the world—the real consumers, such as you and I.

Transportation is Basic

Our objective as citizens of the world must be to improve our lot as individuals and to associate ourselves individually, with plans for progress toward higher standards of living and a broader life. It is basic that our civilization depends upon transportation; and it is now clear that air transportation as a business has introduced us to a new age. It promises to free us individually from the small, tiny world of the great mass of people and to open up the whole earth to us—an earth which thus grows larger in the trade and travel experience of the individual as it grows smaller in the accomplishments of technology.

So, more concretely, our objective should be to extend the benefits of air transportation, as a business, to the individual—to the consumer—just as widely and as rapidly as reasonably possible. This, I believe, is the mounting demand of the consumer. Inside the United States, communities of people are expending much effort and incurring large expense to present to the Civil Aeronautics Board in new route cases every possible bit of evidence and argument in favor of increased air service to their communities. The consumers are waking up. It will be the same the world over.

PICAO, working in Montreal, has spoken on this subject. One of its functions is to act as a focal point for world public opinion on civil aviation. In the Report of the Committee on Air Transport of the Council of PICAO to the First Interim Assembly the Committee among other things said:

" . . . 'The general motivating purpose of the draft Multilateral Agreement is to foster and encourage the widest possible distribution of the benefits of air transport for the general good of mankind at the cheapest rates consistent with sound economic principles, and to stimulate international air travel as a means of promoting friendly understanding and good will among peoples, insuring as well the many indirect benefits of international air transport to the common welfare of all nations of the world' . . ."

PICAO should, and I believe does, represent the consumers of the world. It has here stated the objective of air transportation as a business in a way which meets the need for creative planning which history will some day applaud.

In attaining this objective internationally for air transportation as a business, we meet problems and questions. Are we wise enough to permit air transportation to spread its wings internationally as we permit other businesses to do?

Despite all efforts to be self-sufficient nationally, it simply is impossible for nations to become self-sufficient on a world-wide basis. We all want—indeed, benefit from and in many cases depend upon—international business in our daily lives. As long as nations find it necessary to restrict or hold back this business or that, progress (inevitable though it may be) will be retarded. The same will be true of air transportation as an international business.

Granting some distinctions between air transportation and other forms of business, I cannot help but believe that all world consumers share the ardent hope that international air transportation as a business should be treated like most other international businesses between member states of PICAO with reasonable access to all

* *See January and March, 1946 issues of* AIR TRANSPORTATION.

MEETING FOR A WORLD ORDER OF THE AIR—First Assembly meeting of the Provisional International Civil Organization (PICAO) as it convened last month at the Windsor Hotel in Montreal. C. D. Howe, Canadian Minister of Reconstruction, is shown extending a welcome to the representatives of 44 nations in attendance. "PICAO should, and I believe does, represent the consumers of the world," writes Mr. Pogue.

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Pickup for Clipper Express in every city and principal town in the U. S. by Railway Express Agency, Inc., at no extra charge.

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The System of the Flying Clippers

FIRST ACROSS THE PACIFIC · FIRST ACROSS THE ATLANTIC
FIRST THROUGHOUT LATIN AMERICA

markets and with an open opportunity for everyone, be he large or small, to have his chance.

Surely no one wants to deny any nation access to the air. The concern seems to be over possible unfair competitive practices. Personally, I have always felt that there is one sound way in which it could be arranged for PICAO to render great service, and in the process, to build itself a good name. If anyone who has a proper status feels aggrieved because of the way some other nation or its airlines are treating him, let him tell his story to PICAO in a public pleading; let PICAO investigate any such substantital publicly, and render a public advisory report.

Line of Conduct

I assure you that the mere thought of such a public exposure would prevent the occurrence of many possibilities now feared in the imagination. I believe that the attitude should be to encourage this air transportation business, and to direct our chief concern to checking the fellow who doesn't do right. A line of conduct embodying an attitude is a hard thing to spell out in advance. The imagination tires and quits before the job can possibly be complete. And if it could be completed, the resulting life would be too complex for living.

You cannot successfully substitute a formula for a line of conduct. In my opinion we would do better to let PICAO point out the culprit when he has been found by those general standards of equity and fair conduct to which all decent men subscribe.

There is another phase of air transportation as a business to which I referred at the beginning of this article, and to which I return now—*business efficiency*.

We have not gone very far down this important road as yet. I realize full well the problems of the moment—inexperienced personnel, rapid expansion, shortage of equipment, training of skilled personnel for peacetime operations, scarcity of spare parts, difficulties in securing adequate space, shortage of materials, rising costs, readjustments following the war, and a further long list of problems could be added. But I am not interested in temporary alibis even if they are excellent. I am thinking of a longer look into the future.

Air transportation, generally speaking, must be far more efficient businesswise than it has ever been in the past, or is at present, before it even begins to live up to its destiny. We enjoy technological wonders as we speed through the air at 200, 300, 400 miles per hour, with the promise of going much faster soon. On the other hand, we waste time on the ground riding long distances through traffic-filled streets to and from airports, standing in line to receive complicated tickets in someone's handwriting—now happily being displaced by business machines by some forward-looking companies—to wait long periods for baggage, and just waiting for slow unloading, loading, and servicing at intermediate stops.

In international air transportation it is even worse, because the ground handling problems multiply as they become involved with passport, customs, immigration, public health language, and other matters which can be handled efficiently only if there is the most careful planning and organization by airlines on the one hand and governments on the other, and if both airlines and governments cooperate in the process.

I plead constructively, I hope, for the highest managerial attention over the coming years to this business of efficient ground handling of passengers, cargo, and mail. Public educational campaigns, experimentation, trial and error, a little progress here, a little there, is what will be required. Not until we forget orthodox business methods in other lines of business and assign ourselves a standard as high as air transportation is technologically excellent, will we even begin to have an idea of what we should be striving for.

Some day it will come. We have barely scratched the surface as yet. And when it does, air transportation can really be a business.

SPEED IN CARGO HANDLING—Pogue points out the necessity for streamlining the loading and unloading of planes. Above, TWA shows its new cargo handling system, using Towmotor lift trucks and tractors. While the cart holding outgoing cargo is lifted intact, incoming cargo is already on its way to the terminal building.

Western Air Lines and Subsidiary Offering Air Freight Service

And now it's Western Air Lines and its subsidiary, Inland Air Lines, who are in the air freight business! A system-wide one-class tariff between all points served by Western and Inland became effective June 21.

"The new one-class air freight tariff will mean a reduction of approximately 50 percent over present rates for transporting cargo," Arthur C. Smith, cargo traffic manager for Western, said. "The new rates are on the basis of 30 cents per ton-mile, which is scaled downward to approximately 26 cents a ton-mile as volume of the shipment increases. The rates are for airport-to-airport service, but for a slight additional charge pickup and delivery service is available at most airports on the system."

On the same date WAL, with concurrence of transcontinental air carriers, offered joint through service to the larger communities in the Midwest and East through the Denver gateway.

Transatlantic Movie

The first moving picture world premiere ever to be held aboard a transatlantic ocean airliner took place last month aboard an American Airlines plane halfway between Newfoundland and Europe. The flicker was the Paramount production, *To Each His Own*.

AIR--X--PRESS

OF PEOPLE AND CARGO

Every day you read or hear about chicks or grain flying overseas; styles flying east to west, or vice versa; telephone shortages in the southern states being relieved by hasty air express shipments; shrimp—fresh and from New Orleans—flying northward and westward and all over the country. The examples are endless, and all are interesting.

The people flying the planes and sharing in the spotlight are interesting, too. All are experienced in aviation, and many are war veterans, who dreamed of getting into the air transportation business in the limbo between missions, or talked of it in a cafe in Cairo or Liege or wherever birdmen gathered to speak of the war, and things after the war—if they were to have that opportunity.

The ones who got home and returned to aviation or broke into air transportation with the airlines for the first time have added a wonderful fillip to the industry.

AN OLD NEW BUSINESS

Indeed, air express has come of age and is fast moving into the big business class, but unlike Topsy, it didnt "just grow."

In 1927, the Air Express Division of the Railway Express Agency was formed as the official agent for all the domestic airlines for air express. The function of REA was to coordinate the ground movements of an air shipment with the plane movements and to supply a speedy ground service that would aid and not cut down the speed accumulated in the air.

There were four domestic lines then. That was 1927, almost 20 years ago.

SOME HISTORY

But even that wasn't the beginning of air express for REA. For in 1910 a single engine old Wright biplane flew from Dayton to Columbus, Ohio. There was just about room for the pilot, so the two bolts of blue silk which were "air expressed" to a department store in Columbus rode lashed on the lap of the single passenger.

Among the men at the field watching this historical flight with interest were the transportation men from REA. They were thinking of little more than they had thought of for years—how to keep the shipments moving the fastest way possible. Transportation is an important cog in America's industrial success: at least that is what they had been taught, and who can deny it?

Again in 1919, the express company sponsored an experimental air express flight from New York to Chicago. The 4-engine, 28,000 pound Handley-Paige reconverted World War I bomber groaned off the ground and headed westward. As can happen even today, strong headwinds forced the plane down over the Alleghanies. Rail express took the shipments off the plane and rushed them to Chicago by train.

FACTS AND THE FUTURE

Coming back to the present again, the speed-conscious transportation men of the Air Express Division of the Railway Express Agency saw their organization handle over 2 million shipments last year. There were 17,000 in 1928. They saw rates come down once more. In 1927, a five pound shipment from New York to Los Angeles cost $13.00. Today, the cost is $3.68.

So, the REA transportation veterans work with the airline war veterans and wish them well. Both are working toward the same end: to keep shipments moving fast. America is waiting for stepped up transportation speed and both groups of veterans know that Americans don't like to be kept waiting.

(Advertisement)

When You Want a shipment to go the fastest way, the word "rush" is not enough. Specify "Air Express" and be sure.

Phone For Pick-Up as soon as package is ready. Special delivery at other end often means same-day delivery between many airport towns and cities as far as 1,000 miles apart.

Air Express goes everywhere. In addition to 375 airport towns and cities, it goes by rapid air-rail schedules to 23,000 other communities in this country. Service direct by air to and from scores of foreign countries in the world's best planes, giving the world's best service.

RATES CUT 22% SINCE 1943 (U. S. A.)					
AIR MILES	2 lbs.	5 lbs.	25 lbs.	40 lbs.	Over 40 lbs. Cents per lb.
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549	1.07	1.42	3.84	6.14	15.35¢
1049	1.17	1.98	7.68	12.28	30.70¢
2349	1.45	3.53	17.65	28.24	70.61¢
Over 2350	1.47	3.68	18.42	29.47	73.68¢
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Write Today for the Time and Rate Schedule on Air Express. It contains illuminating facts to help you solve many a shipping problem. Air Express Division, Railway Express Agency, 230 Park Avenue, New York 17, N. Y. Or ask for it at any Airline or Railway Express office.

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Phone AIR EXPRESS DIVISION, RAILWAY EXPRESS AGENCY
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This Flamingo FLIES FREIGHT

SPORT NEWS THE FAST WAY—A Flamingo air freighter loading up with thousands of pounds of newspapers. The Morning Telegraph is flown from Newark to Boston, with Miami soon to be served.

THERE'S a genus of tropical birds known to learned naturalists as *Phoenicopterus;* and among these winged creatures is one with bent beak, long legs and neck, and vivid red plumage—the flamingo.

The flamingo has its niche in natural history, but now it has entered into air transportation via a new private contract air cargo carrier known as Flamingo Air Service, Inc.

With a half-dozen C-47's on hand, Flamingo is now flying freight in the general area between the East Coast and the Mississippi. The company has in its vest pocket an exclusive contract with Air Lanes, Inc., for the air transportation of lobsters from Yarmouth, Halifax, and Sydney, Nova Scotia, to New York. Some three million pounds of this shellfish are expected to be flown southward during the current year.

Flamingo has also fixed wings on *The Morning Telegraph,* well-known sporting newspaper. On the first flight from Newark to Boston, four full planeloads made rapid delivery. The average, however, is two planeloads; but this will be increased when the paper will be flown down Miami-way in the very near future.

The air cargo line's operating base is at Westchester County Airport, Rye, New York; and principal overhaul base and general offices at Avon Park, Florida. New York sales office is at 80 Broad Street.

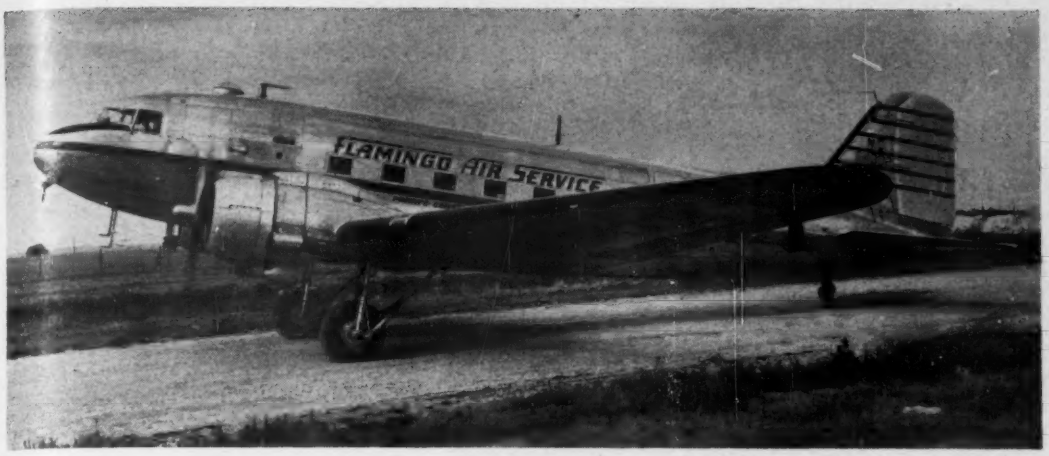
At the present time Flamingo is operating on an airport-to-airport basis, but arrangements will be made in the future for pick-up and delivery. Overseas operations? Not right now. The airline will concentrate on business this side of the Atlantic.

Flamingo is headed by William Green, with Robert W. Bowen as executive vice president; Bernard C. McMahon, Jr., vice president-sales; and John L. Stenback, secretary-treasurer in charge of operations. Robert Belfry is chief pilot.

Bowen, an all-out air cargo man, was formerly with Pan American, Panagra, and TACA. In the aviation industry seven years, he is the only member of Flamingo Air Service who is not a war veteran. He did his bit, however, with the Air Transport Command's air cargo division in Miami.

A Marine captain, McMahon is a

CARGO TIE-DOWN—Interior of plane showing method of tying down airborne newspapers. In the foreground (left to right) are Robert A. Cole and Bernard C. McMahon, Jr. Jack Gano, pointing, and Hector R. Doughty are in the background.



READY FOR THE TAKE-OFF—One of the half-dozen C-47 cargoplanes operated by Flamingo Air Service.

former employee of American Airlines. Soon after Pearl Harbor he served in Miami as manager of the Cargo Division. Called to the colors, he went overseas as operations officer of the Transport Air Group in the Central Pacific. It was TAG's job to pick up cargo brought into the rear areas by the ATC and NATS, and fly it into the forward areas. He joined Flamingo soon after his discharge last October.

Stenback has served as co-pilot and pilot for TWA and Panagra, and in military uniform flew for the ATC. Belfry piloted transport planes for American and Chicago and Southern, later turning up with the Overseas Division of Consolidated Vultee, ferrying land and seaplanes. He eventually became a check pilot, and after the war was test pilot for Globe Aircraft. Belfry has more than 7,000 flying hours to his credit.

All of Flamingo's pilots are former Army and Navy officers. The ground personnel are ex-airline men as well as war veterans. And most of them are old hands at flying and maintaining C47s and C54s.

Adjustable Air Passenger Loading Stand Developed

Development of an adjustable passenger loading stand for use with any airliner with entrance doors located from 80 to 136 inches above the ground, has been announced by Eastern Air Lines. According to Captain Eddie Rickenbacker, president and general manager of the company, the new stand purchased by EAL was specially designed for the airline's 54-passenger Douglas *Skymasters*, 60-passenger Lockheed *Constellations*, and 36-passenger Martin 202s.

"This newly designed passenger ramp," he said, "not only accommodates each of our three newest, largest aircraft types with their varying cabin floor-to-ground heights, but expedites greatly the emplaning and deplaning of passengers."

A self-contained unit, which may be easily adjusted like an extension ladder to the proper plane door level, the stand is of all-aircraft aluminum construction and weighs 875 pounds. The top section slides from beneath the lower section, and is operated by a single hand crank. When the top section is retracted, the lower part, operating on a balanced spring arrangement, can be lowered so that the entire unit is only 72 inches high. Thus compressed, the unit is easily stored on the ramp and is out of the way of low-wing aircraft.

As designed by EAL, the stand in a fully extended position has 15 steps, each 36 inches by 11 inches; two landings, each 22 inches deep; and a top landing, 2½ feet deep. In an extended position the stand will safely support 5,500 pounds. A six-volt light system with six plastic rod lights, three on either side of the steps, provide adequate indirect lighting.

The stand is mounted on four tires and has four-wheel brakes. Although the brakes eliminate unsteadiness, an additional precaution is taken by locks on the forward end that secure the stand to the ramp when passengers are in motion. Even a 60-mile-an-hour gale will not budge the stand. In a retracted position, it will retain its upright position under almost any condition.

The idea of developing such a stand was conceived by R. A. Latta, assistant to J. H. Brock, purchasing agent of the airline in Miami. Plans were drawn up and delivered by Brock to the Glenn L. Martin Company, which worked out the engineering and production details. It is understood that another airline has cancelled its order for a number of loading stands of a different design and placed a new order for the one described in this article.

New TACA Service

TACA has been authorized by the Government of Guatemala to restore full air transport service to that country.

NEW LOADING RAMP IN USE—Representatives of the aviation press deplane at Miami, using Eastern Air Lines' new-type passenger loading stand. Shortly afterward they boarded an Expreso Aero Interamericano plane, bound for Havana, where the writers were the guests of the Cuban airline.

AIR CARGO PERSONALITIES

JAMES A. WOOTEN

General Manager
Contract Air Cargo Division
American Airlines

JAMES A. WOOTEN, general manager of American Airlines' Contract Air Cargo Division, has been active in transportation most of his life.

Born in Cincinnati, Ohio, in 1913, his early education was obtained at schools in Kentucky and Ohio. Following his freshman year at Denison University, Wooten, whose father was a produce merchant, came to New York as an agent for the firm of Droste and Schneider to trade on the National Mercantile Exchange. After six months in New York, the youthful Wooten was eager to see more of the world and sailed for Germany on the Leviathan as a member of the crew. This was followed by other trips to Norway, Sweden, Denmark and South America.

Upon his return to the States, he joined the trucking firm of T. J. Connell Motor Lines in Indiana as an agent, and became traffic manager for the firm within the year.

Wooten formed his own trucking company in 1932—CC&I Motor Express Company, a common carrier with headquarters in Indianapolis. He was 19 years old at the time and held the post of vice president and traffic manager. A year later he formed another motor line, Lett & Company of Indiana, Inc., a contract carrier serving major cities in the Midwest and Southwest. The two firms owned and operated 80 trucks.

At 21, Wooten was appointed Temporary Code Authority for the freight industry, working under the NRA, and was elected chairman of the Contract Truckmen's Association of the State of Indiana. In this capacity, he appeared before the Indiana Public Service Commission to define and clarify the new Motor Carrier Act.

With the two motor lines running smoothly, Wooten returned to college to continue a course in economics. A year-and-a-half later he was elected a director and one of the founders of the Indiana Motor Rate and Tariff Bureau and left college to help write the tariffs which were subsequently filed under the Motor Carrier Act of 1935.

In the meantime his two motor lines had grown to include 150 trucks, trailers, and tractors, and Wooten filed for a combination certificate to merge the two companies under the name of Lett & Company of Indiana, Inc.

In 1938, Wooten was reelected director and secretary of the Indiana Motor Rate and Tariff Bureau and director of the Central States Motor Freight Bureau. In 1939, he was reappointed a member of the National Motor Freight Classifications Committee of the American Trucking Commission in Washington, D. C., and joined the Inter-State Motor Freight System, the nation's largest trucking line, as traffic assistant to the chairman of the board. A year later he left to become general traffic manager of Riss & Company, a transcontininetal trucking concern.

Wooten enlisted in the Marine Corps as a private in 1943. Soon after receiving a commission he was injured in maneuvers and given a medical discharge. In October of the same year, he joined American Airlines as a rate and tariff analyst, becoming air cargo traffic manager in 1944. He drew up the rates and tariffs filed on Sept. 15, 1944, before the CAB, the first air freight tariffs ever filed by any airline. This preceded the inauguration of American Airlines' coast-to-coast air-freight service.

As director of American's air freight operations, Wooten established cargo procedures, instituted training courses for cargo salesmen and developed air freight's scheduled and non-scheduled operations.

Last June, American Airlines and Consolidated Vultee signed a contract in which the two companies agreed to use the Consolidated Model 39, four-engine cargo plane, for a period of 90 days in non-scheduled cargo shipments to determine whether four-engine equipment was practical for air freight purposes. American was the first airline to undertake such an experiment and the first to inaugurate commercial air freight service.

For the year 1945, American Airlines air freight operations reached a $1,000,000 mark and set numerous records for the types of cargo flown. A typical example of Wooten's utilization of this entirely new method of transporting products, was the first coast-to-coast shipment by air of the complete household furnishing of six New York City families. The furniture arrived in Los Angeles the next day and set a precedent for long-distance moving. This was followed by other "first" shipments by air of jeeps, tractors, gas ranges, and similar heavy items. Recently he took over a new assignment—that of general manager of airline's new Contract Air Freight Division, which will operate independently of American.

Accent on Know-How

(*Continued from Page* 16)

scheduled airlines. Rome pointed with pride to its record to date of 98 percent completion of all trips since the inaugural flight two months ago, underlining the fact that MAT boasts of "practically no deadhead hauls."

"We knew that it was a tough job to get regular business in equal volume both ways between two points," he explained, "but it was possible to get full loads from Point A to Point B, and from Point B to Point C—so we just located business from Point C to Point A, and signed up all concerned. The result is full loads every trip between all three points on the triangular route we fly."

Both Rome and Richard Ludlow, president of MAT, are firmly convinced of the wisdom of serving a selected group of bulk shippers in a limited area. Secretary-Treasurer Jack Burns, who adds up the figures that really count, can testify as to that policy's success.

Traffic and sales offices of Meteor Air Transport are located at 11 Broadway, New York City. Other departments are at Teterboro Air Terminal, Teterboro, New Jersey. Representatives in the cities served by MAT are linked by a TWX communications system.

Is MAT news? Rome thinks so. In fact he calls it headline news when "a new company doesn't tell you what it is going to do, but what it has done quietly in two months of actual operation."

New Wright Motor

According to the Wright Aeronautical Corporation, the new 800 horsepower Wright *Cyclone* 7, selected by Boeing to power its Model 417 twin-engine medium transport plane, was designed especially for intercity and feederline planes.

THE BENRUS *"Sky Chief"*

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Benrus times schedules across the Atlantic . . .

Routes that network America fly by Benrus time . . .

Even in Australia Benrus times the flights . . .

For dependable, super-accurate Benrus is the official watch of famous airlines everywhere.

Sky Chief

Pictured above is the watch that fliers swear by—the "Sky Chief"—a chronograph by Benrus.

This superb watch was developed by airline engineers and Benrus watch experts. Long sweep hand gives elapsed time in fifth seconds. Dial has 3 small circular sections. One gives lapsed minutes up to 30. One is the usual second hand. The third gives lapsed time of trip in hours and half hours.

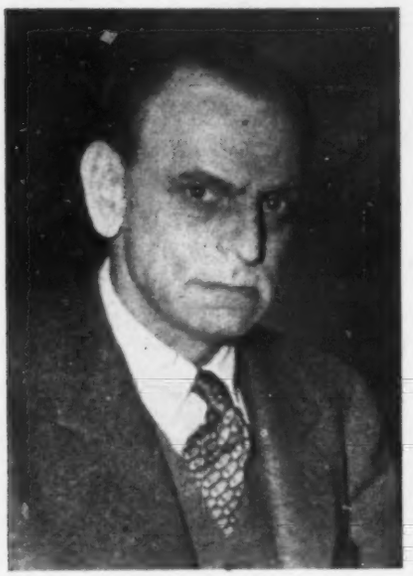
The Sky Chief has 17 jewels. Like all Benrus models, it is built with the magnificent precision that gives Benrus the title "Watch of guaranteed accuracy."

Benrus jewelers offer you a distinguished selection of popularly priced Benrus watches for both men and women.

BENRUS *. . . official watch of famous air lines . . .*

INTERNATIONAL FLAVOR—It's nothing else but that when you see the above at Santa Monica Municipal Airport where four-engined Douglas Skymasters and twin-engined Skytrains consigned to both domestic and foreign airlines await delivery. In this picture may be seen airliners destined for Sweden, France, Mexico, and Brazil, as well as for such domestic air transport companies as Delta, National, United and Western.

NEW CAB HEAD



James M. Landis, dean of law at Harvard University, who succeeds L. Welch Pogue, chairman of the Civil Aeronautics Board, this month. The 47-year-old legal expert is a widely recognized figure, both in this country and abroad. His appointment by President Harry S. Truman is being hailed as a move to keep the political finger out of the CAB pie. A graduate of Princeton and Harvard, he served as secretary to the late Supreme Court Justice Louis B. Brandeis. In 1925 he joined Harvard's law faculty, becoming dean of the Law School 12 years later. Landis has held positions as a member of the Federal Trade Commission, the Securities and Exchange Commission (chairman from 1935 to 1937), director of the Office of Civilian Defense, consultant to the Labor Department and War Department, and director of economic operations in the Middle East. He has taught aviation law since his return to Harvard in 1945.

Nearly 3,000 Non-Scheduled Operators in United States

You can take the word of the Civil Aeronautics Administration for it—there are at least 2,730 non-scheduled air carriers with 5,529 aircraft in this country.

Not all are cargo and passenger air carriers. Among them are charter outfits delivering mail for the Indian Service, dropping food during high snows, patroling fences, prospecting for minerals, hunting lost persons, herding horses, performing ambulance service, eagle hunting, policing, and advertising via public address systems.

The CAA as yet has not assembled a complete list of non-scheduled operators, nor determined exactly how many come under Part 42 (Non-Scheduled Air Carrier Certification and Operation Rules), but it is known that there are more than 4,630 companies conducting miscellaneous commercial flying operations. More than half of these are engaged in activities that will be covered by Part 42.

Foreign Pilots Will Get Limited CAA Certificate

A limited pilot certificate is to be issued by the Civil Aeronautics Administration for the convenience of foreign pilots ferrying planes from the United States.

It will be issued if the applicant has a valid pilot certificate issued to him in his own country, and will be honored in the United States as long as that certificate holds good. An oral examination in United States traffic rules will be given by a CAA inspector. The ability of the applicant to speak and understand the English language is important.

A limited pilot certificate will not entitle the holder to fly in this country for hire. It is limited to those ferrying planes out of this country, and to foreign pilots flying United States registered aircraft in this country for personal use, and to maintain pilot competency.

NEW ATA OFFICER

John W. Thompson, named vice president and director of information for the Air Transport Association. Former director of public relations for the Ford Motor Company, he assumed his new duties early this month. Thompson spent three years in Puerto Rico, going there in 1937 as a member of the staff of Steve Hannegan Associates on a publicity program for the island. He subsequently was placed in charge of public relations for the Puerto Rican Reconstruction Administration under the United States Department of the Interior. Returning to Washington in 1940 with the Foreign Relations Office of the United States Department of Agriculture, he rejoined Hannegan the following year as publicity director for Consolidated Aircraft Corporation, and later with Hill and Knowlton as resident director of public relations for Consolidated Vultee Aircraft Corporation after the merger of the two companies.

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BALANCE SHEET
of American Civil Aviation

"Aviation Is No Longer a Specialized Business Serving the Few"

By WILLIAM A. M. BURDEN

Assistant Secretary of Commerce
For Air
United States Department
Of Commerce

A BIRTHDAY occurred last month which gave everyone in the United States reason to congratulate himself. On May 25, Federal regulation and promotion of civil aviation was 20 years old.

As a Federal official concerned with civil aviation myself, I might be accused of self-praise in calling attention to this anniversary. If praise is due, however, I would direct it to the American people themselves. Through their elected representatives, they had the foresight in 1926 to lay the foundations for a civil aviation industry which has outstripped the world. In the two decades that followed the passage of the Air Commerce Act, they consistently supported a policy which built civil aviation to a great national asset.

The United States civil aviation policy has been unique among nations, and its success is another tribute to the effectiveness of the American Way. Some great countries made their civil aviation a Government monopoly, and subordinated it to their military air programs. Others left private enterprise to develop civil aviation as best it could, with the Government showing little concern for the fate of its air transportation system.

The United States has avoided both these pitfalls. We have kept civil aviation completely separate and distinct from military aviation. To us, it is a business which must be operated by businessmen, not run by soldiers or Government bureaucrats. Consistent with this policy, America has given private industry the responsibility for building and operating civil aircraft, but at the same time we have by law declared it the function of Government to foster this new form of transport and to regulate it in the public interest as other forms of transport are regulated.

The policy of aiding civil aviation in its development period is a logical extension of the help our Government gave to earlier methods of transportation. As steamships, railroads and automobiles came into use, we realized how great a contribution each could make to the national economy and the national defense. To make certain that the nation should realize the maximum benefits from these new modes of transport, the Federal Government gave prompt and generous help in each case.

For improvement of rivers and harbors, we have spent almost three billion dollars, to which might be added 46 millions in subsidies to steamship lines and 189 millions for construction of ships. As an incentive to the development of a great railway network, the Federal Government made grants of land and rights of way valued at almost half a billion dollars. More recently, Federal funds exceeding 6½ billions have been used to build highways, not for the particular gain of car manufacturers or truckline operators, but for the benefit of the nation as a whole.

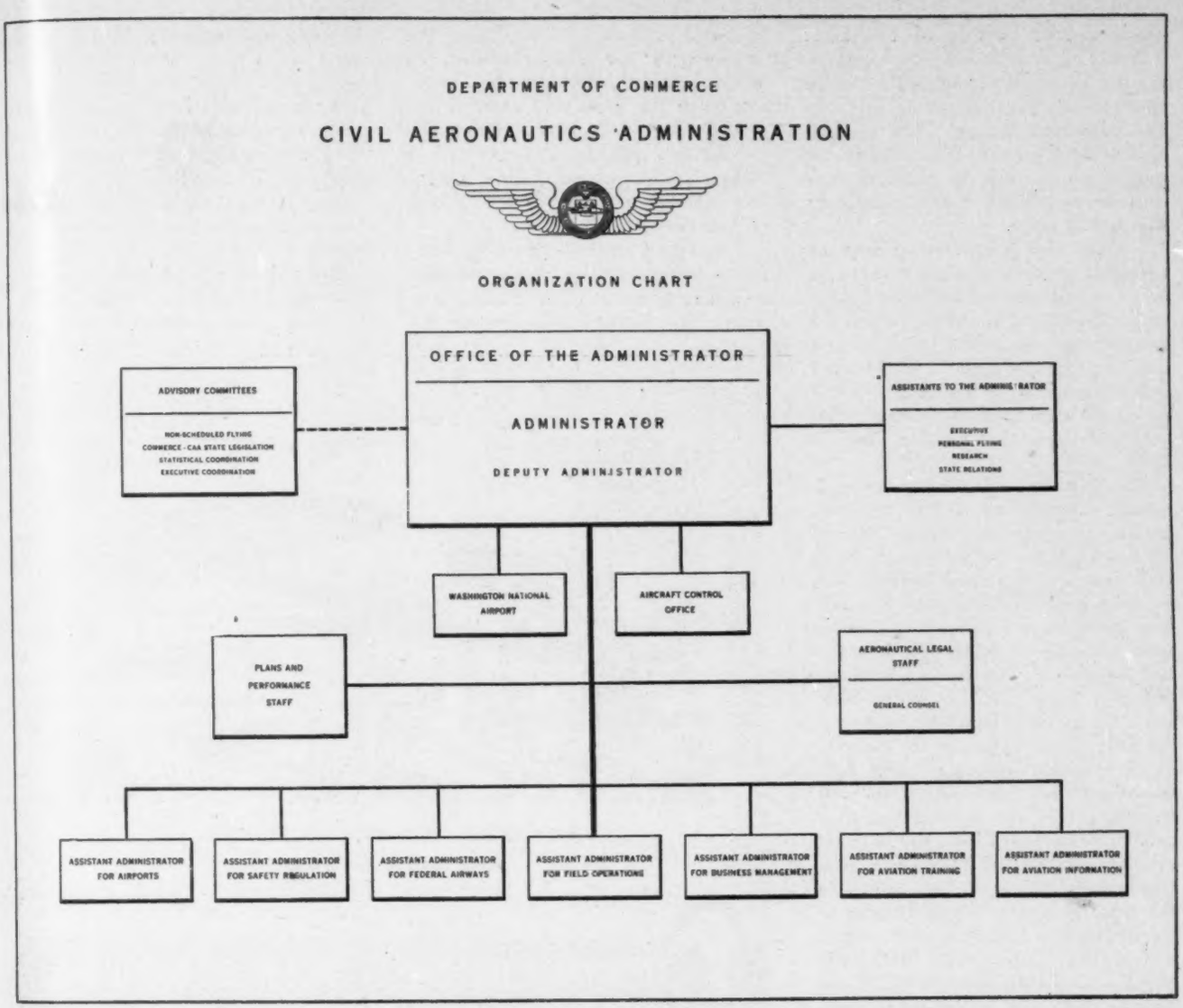
In the early years of these programs, some people thought the outlays a dangerous experiment. When the first Federal roads appropriation of $25,000,000 was up for passage in 1916, a minority report warned that this was "a policy which would lead to enormous expenditures in the future, with but little benefit to the people as a whole."

How wrong that minority proved, we all know. Not only have the people benefited greatly, but we are well on the way toward recouping through gasoline taxes the money invested in roads. It has taken 30 years to reach this point, and it took about 80 years to get back through reduced rates what the Government gambled on the railroads; but everyone will agree that the wait was worthwhile and the people came out ahead in the long run.

What does our balance sheet for civil aviation look like?

In the last 27 years, we have invested less than 875 millions of Federal money in this newest form of transportation, compared to the more than 10 billions we have put into rails, waterways and

DISCUSSING INTERNATIONAL CIVIL AVIATION.—Talking over some of the problems raised late in 1944 at the Civil Aviation Conference in Chicago are (left to right): Viscount Knollys, United Kingdom; William A. M. Burden, Assistant Secretary of Commerce for Air; and Theodore P. Wright, Administrator of Civil Aeronautics.



roads. Already the Government can show a profit on air mail, for the total payments to the airlines have been more than recovered in postal revenue. Our returns from the money spent on services provided to civil aviation by the Civil Aeronautics Administration cannot be measured directly, but it should be noted that in 1939, last normal prewar year, the airlines and aircraft manufacturers alone paid Federal taxes amounting to more than 70 percent of the CAA appropriation.

Far more important, however, are the indirect benefits to the nation from the aid we have given air transportation. The United States would have faced an even more desperate situation when the Axis delivered its surprise attack in 1941, had it not been for our unsurpassed civil air system. Men and materials were rushed to Alaska and other critical points by our commercial airlines. These products of our commercial aircraft manufacturers, and the great fleet of military aircraft that the same companies built, moved safely and speedily to their destinations over the network of navigation aids built and operated by the Civil Aeronautics Administration. The CAA literally transplanted many of its radio navigation facilities to key points like the Ascension Island, lone stopover in the South Atlantic, and CAA technicians provided the know-how for installation of airways radio equipment at some 200 other overseas locations. Volunteer civil pilots helped smash the submarine menace, and graduates of the CAA pilot training program, like the late Major Bong, went on to brilliant military careers. Thus in many ways our civil aviation provided a nucleus of badly needed air power for a country which did not maintain a large military establishment in peacetime.

The world is not yet so settled that we can afford to forget this lesson, but it is more pleasant to consider how civil aviation serves the uses of peace.

Aviation is no longer a specialized business serving the few.

Last year more than 8,000,000 Americans rode the airlines. Among these were businessmen seeking to get reconversion moving rapidly; statesmen on missions of world reconstruction; veterans returning to their homes and ordinary John Public. What a contrast with 1926, the Government's first year of fostering and regulating civil aviation, when only 5,700 passengers were carried!

In 20 years civil aviation has grown to the point where it is both a great industry in itself, and an important factor in expanding and speeding up the operations of our entire economic system. Today it employs perhaps 300,000 people. This is about 30 times the 1926 total, and today's figure easily should be tripled in ten years.

But, in addition, we can look to aviation to make new jobs by facilitating the industrialization of the West and South; by making possible increased foreign trade with existing markets and new, undeveloped areas; and by stimulating greater travel by Americans both at home and abroad just as the automobile did. We can foresee the time when the number of personal planes in use will be counted by hundreds of thou-

sands instead of tens of thousands.

Yes, civil aviation has done a big job for the American people, and it has an even greater contribution to make in the immediate future. But we can realize these gains to the fullest extent only if we continue the judicious support we have given the industry over the past 20 years.

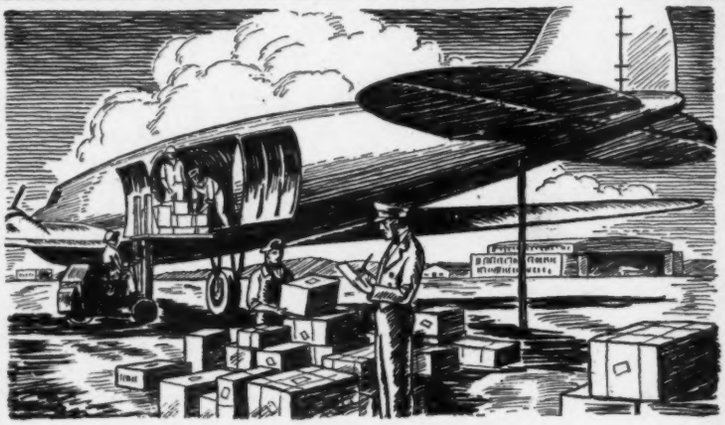
For the next few years we must be prepared to invest substantial sums in order to make up for the enforced lag in civil aviation facilities during the last five wartime years. Our airways and our airports must be modernized and expanded without further delay if we do not want them to become bottlenecks blocking civil aviation development.

All this means a rise in Government's annual expenditures on civil aviation but the proportionate increase will be far less than the rise in the volume of civil flying. Our ground facilities will be used more intensively as this volume increases and the cost to Government per unit of flying will decrease. We saw the same process in automotive transport after the last World War, when the use of automobiles began for the first time to approach the capacity of the highway system. Under such conditions the direct return to your Government in the form of taxes on aviation enterprises, on the sale of aviation gasoline and from other aviation sources, will rise very rapidly in the next few years—to say nothing of the tremendous contribution of a large and healthy civil aviation to the efficiency of our national economy. There is little doubt that before many years civil aviation will be returning far more to Government than the Government outlay upon it.

For these reasons I am confident that the benefits to be derived from Government-financed aviation facilities and services will prove that the investment in them which is absolutely *necessary* if aviation is to attain its normal growth is also a *prudent* investment from the standpoint of our national interest. To you, the American people, who are the owners of this great civil aviation network, let me report on how your public servants are operating it, and what it is costing you, so you can judge for yourself whether we are exercising our stewardship soundly.

The biggest activity of the Civil Aeronautics Administration is the establishment and operation of the Federal Airways. The Federal Airways are the lighted, radio-equipped routes which cover the United States, making possible safe aerial navigation in good weather and bad. From the days when pioneer airmen carried the mail across the continent with only bonfires to light the way, CAA technicians have developed a 40,000-mile system that has become a model for the rest of the world.

When clouds obscure the ground, the pilot follows the radio beams sent out by the CAA range stations. He keeps



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THE HALLMARK OF HOSPITALITY

The Author

A New Yorker by birth, William A. M. BURDEN is a Harvard graduate, cum laude, 1927. From 1928 to 1932 he was an aviation financing analyst for Brown, Harriman & Company, leaving that position to join Scudder, Stevens, & Clark, New York investment counsel, to take over the aviation research department. Terminating seven years' service with the latter concern, Mr. Burden turned to the National Aviation Corporation where he became vice president and director in charge of air transport.

In May, 1941, Mr. Burden became vice president of Defense Supplies Corporation, an RFC subsidiary, in which position he headed the American Republics Aviation Division. Fourteen months later he became special aviation assistant to the Secretary of Commerce, and in February, 1944, he was named Assistant Secretary of Commerce of the United States.

The author has many Government and aviation affiliations. His articles have received wide circulation. Mr. Burden is the proud possessor of the largest privately owned air transportation library in the United States.

in touch with the CAA communications stations along his route, which relay information about his flight to an air traffic control center. This center makes certain that the pilot is following a course safely separated from that of all other planes in the area, just as stop and go lights and policemen on the ground help to prevent collisions among automobiles. When the pilot nears his destination, CAA personnel in the airport control tower take over guidance until a safe landing is completed.

Effective as these methods have been in the past, many improvements are necessary for today's growing traffic. During the next two years, CAA hopes to convert its radio ranges to very high frequency, which permits static-free reception and makes available more transmission channels. CAA plans to install at all major airports instrument landing systems, which will enable the pilot to land in bad weather simply by following a pair of cross-pointers on his dashboard. Over a somewhat longer period, CAA hopes to perfect for civilian use radar devices to warn the pilot of approaching aircraft, and to give the airport tower man a picture of the traffic moving in his control zone. Still more advanced techniques will be de-

MAIL PLANE.—This old air mail de Havilland, transferred from the Post Office Department, was the first plane owned by the CAA.

SUMMARY OF AIRCRAFT OWNED AND ON ORDER U.S. DOMESTIC AIR CARRIERS

N.R.—No Report Airline	Owned as of April 1, 1946	Anticipated Deliveries July-Dec. 1946	Anticipated Deliveries Jan.-June 1947	Further Anticipated Deliveries	Total
All American Aviation, Inc.	10 Stinson 10-C 1 Noorduyn Norseman 2 Beechcraft 13	N.R.	N.R.	N.R.	10 Stinson 10-C 1 Norseman 2 Beech. 13
American Airlines, Inc.	85 Douglas DC-3 5 Douglas DC-4 90	43 Douglas DC-4 14 Douglas DC-6 57	2 Douglas DC-4 30 Douglas DC-6 23 Consol. 240 55	N.R.	85 DC-3 50 DC-4 44 DC-6 23 CV-240 202
Braniff Airways, Inc.	17 Douglas DC-3 5 Douglas DC-4 22	2 Douglas DC-3	18 Martin 202	N.R.	19 DC-3 5 DC-4 18 M-202 42
Chicago & Southern Air Lines, Inc.	14 Douglas DC-3 4 Douglas DC-4 18	N.R.	17 Martin 202	N.R.	14 DC-3 4 DC-4 17 M-202 35
Colonial Airlines, Inc.	16 Douglas DC-3	N.R.	20 Martin 202	N.R.	16 DC-3 20 M-202 36
Continental Air Lines, Inc.	12 Douglas DC-3	5 Douglas DC-3	N.R.	N.R.	17 DC-3
Delta Air Lines, Inc.	17 Douglas DC-3 7 Douglas DC-4 24	N.R.	5 Martin 202 or Consolidated 110	15 Martin 202 or Consolidated 110	17 DC-3 7 DC-4 20 M-202 or C-110 44
Eastern Air Lines, Inc.	54 Douglas DC-3 1 Douglas DC-4 55	19 Douglas DC-4	25 Martin 202 14 Lockheed Constellation 39	25 Martin 202	54 DC-3 20 DC-4 50 M-202 14 L.C. 138
Essair, Inc.	3 Lockheed 10-A 3 Douglas DC-3 6	N.R.	N.R.	N.R.	3 L-10-A 3 DC-3 6
Mid-Continent Airlines, Inc.	8 Douglas DC-3	2 Douglas DC-3	N.R.	N.R.	10 DC-3
National Airlines, Inc.	5 Douglas DC-4 12 Lockheed 18 17	1 Douglas DC-4	6 Douglas DC-6	N.R.	6 DC-4 6 DC-6 12 L-18 24
Northeast Airlines, Inc.	6 Douglas DC-3	9 Douglas DC-3 3 Douglas DC-4 12	N.R.	N.R.	15 DC-3 3 DC-4 18
Northwest Airlines, Inc.	24 Douglas DC-3 11 Douglas DC-4 35	N.R.	10 Boeing 377	N.R.	24 DC-3 11 DC-4 10 Boeing 377 45
Penna.-Central Airlines Corp.	29 Douglas DC-3 27 Douglas DC-4 56	N.R.	14 Douglas DC-6 50 Martin 202 64	N.R.	29 DC-3 27 DC-4 14 DC-6 50 M-202 120
Transcontinental & Western Air, Inc.	50 Douglas DC-3 5 Boeing 307 9 Lockheed 49 64	13 Douglas DC-3 1 Lockheed 49 9 Lockheed (unspecified) 23	3 Douglas DC-3 10 Lockheed 49 1 Lockheed (unspecified) 14	N.R.	66 DC-3 5 B-307 20 L-49 20 L-unspecified 111
United Airlines, Inc.	70 Douglas DC-3 25 Douglas DC-4 95	12 Douglas DC-6	23 Douglas DC-6	70 Martin 303	70 DC-3 25 DC-4 35 DC-6 70 M-303 200
Western Air Lines, Inc.	16 Douglas DC-3 3 Douglas DC-4 19	10 Douglas DC-4	5 Douglas DC-6	10 Consol. 240	16 DC-3 13 DC-4 5 DC-6 10 Consol. 240 44
TOTAL	556	143	276	120	1,105 Overseas 286 1,391
Seats Available:	38,460+Overseas	12,092=50,552			

Overseas in possession or expected by end of 1947:
DC-2 (2); DC-4 (64); DC-3 (72); Sikorsky (5); B-307 (3); L-49 (75); B-314 (8); M-130 (1); B-377 (28); Rainbow (10); CV-47 (15); DC-6 (3)—Total 286.

ELEVEN YEARS AGO.—Roadable autogiro shown as it was delivered at the door of the CAA's airplane development program of 1935.

veloped and applied as rapidly as their safety and efficiency can be assured.

In the field of airports, Congress has just voted a $500,000,000 Federal-aid program, by which the CAA plans to assist local public agencies to build some 3,000 new airports and improve some 1,600 existing ones. Under this program, we hope to make flying convenient for the people in thousands of communities without air service.

CAA will continue its efforts to assure air safety for the thousands of new pilots and passengers, by regulation where necessary and by education where possible. Our objective at all times, will be to encourage the growth of aviation by limiting restrictions to the minimum consistent with safety.

Just what do these activities which we need to help make this nation preeminent in civil aviation cost the taxpayer? Taking the entire amount spent on civil aviation since 1918, including even the sums that went for airports as part of the work relief programs during the depression, it has cost each American only 25 cents a year. If we consider only the money appropriated for CAA and its predecessor agencies, Federal regulation and promotion of civil aviation has cost you and me an average of only 17 cents a year.

But what about this program of modernization and airport construction you are planning? some may ask. Won't this increase the Government's expenditures for civil aviation a good deal?

Yes, it will. It will bring the average cost of CAA to date for each American up from 17 cents a year to an unheard of amount—all of 21 cents!

Look at the civil aviation industry we have in the United States today. Consider how much it benefits all of us in war and peace. And then ask yourself: Isn't this the biggest 21 cents' worth that money could buy?

Seven Points on Sea-Air

(*Continued from Page 8*)

company with perhaps 80 percent of its investment in ships and 20 percent in planes would not put much emphasis on the promotion of plane travel. The best that could be expected of the steamship companies is impartiality. United States air transport was not built by, nor will it reach its full potential in the hands of people who are merely impartial.

If what the steamship companies want is the right to offer a complete transportation service overseas, they are shadow-boxing because the right of complete facilities overseas already exists, except that the use of those facilities has been placed at the disposal of the consumer rather than at the disposal of the steamship operators. The airlines believe that the traveler is the one who should make the ultimate decision as to how he wants to travel.

VI

The steamship companies again proudly outline their interest in the early development of air transport and cite a few instances where steamship companies actually flew airplanes.

The airlines appreciate the interest of anyone in air transportation, but must agree, and do heartily, with the decision of the chosen Federal agencies that sea and air transportation are two entirely different things.

VII

The steamship companies constantly urge that the difference between air and sea transportation is one of degree.

The airlines disagree completely with this supposition because the two operate in entirely different elements on entirely different principles. What is more, transportation in a 300-mile-per-hour airplane is an entirely different commodity from that provided by an 18-knot steamer, just as different as a silk dress and a hay rake. This we would call more than a difference in degree.

We believe this covers fairly well the principal points involved in the "seaside" of the article appearing in the last issue of AIR TRANSPORTATION.

However, from an overall view of the article, one general point seems to emerge. That point is given emphasis by the fact that in the past it is reported that the revenue of first class and cabin class travel on United States ships has never represented more than 10 percent of the total. If, as they say, air transportation may take over 50 percent of that, it certainly doesn't indicate an irreparable loss to the steamship companies. They will survive, and if they fail to grow stronger, it will be their fault, not the airlines'.

We feel that the present unrest among the steamship companies regarding air transportation is not much different from the unrest which existed among the horse and wagon operators during the advent of the automobile. It is just another sign that progress is being made; that the American system of competitive enterprise is continuing to show its productive superiority over other systems. We do not want to take away in the least from the noble tradition of the American maritime service, nor from the practical job which has been done by the shipping interests. We believe that they deserve great credit and commendation and merit a continuing place in the world transportation picture, but we agree in no way with their argument that airlines and shiplines are parallel modes of transportation, or that the shipping organizations are capable and experienced enough to take over our business.

AIR-PORTATION NEWS

[REG. U. S. PAT. OFF.]

Marchev Backs Air Power For Peace in Speech Before New York Air Traffic Group

IN a broadcast address at the first anniversary luncheon of the Airlines Traffic Club of New York, Alfred E. Marchev, president of the Republic Aviation Corporation, offered a three-point program for the preservation of world peace. Representatives of 18 domestic and foreign airlines and a number of leaders in aviation circles attended the affair in the Hotel Sheraton, New York.

Stressing that his company desired to "stay in the business of building air transports as well as personal planes," Marchev nevertheless pointed out the responsibility of performing for the Government.

"There are three ways of working toward peace," he said. "The first way is to give every bit of moral support we can to the sincere, hard-working men and women who are trying to keep the peace through the United Nations organization and through international conferences and discussions.

"The second way is to make sure that the research and development programs in our own country are kept alive and advanced, and that our people are made

Alfred E. Marchev

to realize the utter necessity of keeping up such progressive work. . . . Both we and the Army Air Forces recognize that they (the newest military aircraft) are already approaching obsolescence. Our designers, and the designers working in other companies, are already at work on faster and better aircraft; we are working, in the industry, on guided missiles and other devices which, almost within months, will make present-day planes as antiquated as the box-kite that the Wright brothers flew at Kitty Hawk in 1903."

The third way to preserve the peace, Marchev said, was by carrying the American way of life to all points of the globe. The numbers of these American travelers "will increase, and some day, soon, there will not be restrictions for business trips only, but they will be traveling for pleasure and recreation."

In an off-the-air postscript to his broadcast speech, the Republic president urged the speedy solution to the many problems concerning the general handling of passengers and cargo. He also discussed the forthcoming *Rainbow* transport plane, revealing that deliveries will begin late next year or in 1948.

Guests of honor included George Bauer, international marketing consultant; George Boochever, general counsel of the Aviation Section, New York Board of Trade; Harry A. Bruno, of Harry A. Bruno and Associates; John F. Budd, publisher of AIR TRANSPORTATION, and chairman of the Aviation Section; John Forsythe, of TWA; and Jerome Lederer, of Aero Insurance Underwriters.

The Airlines Traffic Club is headed by Warren A. King, UAL, who acted as master of ceremonies. Martin Graefe, NWA, holds the post of vice president; Richard Unger, NAL, secretary; and Charles Ricker, EAL, treasurer. Franklin Hunt, NEA, was program chairman, with John F. Budd, Jr., NEA, directing the publicity.

Gas for TWA

Contracts have been signed with four major oil companies for TWA's domestic aviation gasoline requirements, estimated to cost six to nine million dollars per year for the June 1, 1946-May 31, 1949 period.

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By Richard Malkin

(Trade Mark)

TAILWIND TALE

THE estimable British magazine, *The Aeroplane*, twits us for publishing in the same issue of AIR TRANSPORTATION (February, 1946) two different coast-to-coast records: one set up by a *Shooting Star*, and the other by a TWA *Constellation*. The *Shooting Star* crossed the country in four hours, 13 minutes, and 26 seconds; the *Connie* in seven hours, 27 minutes, and 48 seconds.

AT THE CONTROLS—Jack Frye, president of TWA, in the pilot's seat as the Constellation set a new mark last February.

Our colleagues across the sea leave much to the imagination of their readers, particularly those not too familiar with American aviation developments. For example, the *Shooting Star* is not described as a jet-propelled fighter plane. Nor is it explained that the big transport, with Jack Frye at the controls, carried 45 passengers and a crew of seven. At the time our account said that "the record clipped four hours, 27 minutes, and 12 seconds from the best previous time for the route, which had been set by the same airline 5½ years ago."

But our colleagues are concerned about tailwinds. They claim that "there is rarely any mention in American editorials that in fact a tailwind exists." Which statement now broadens to embrace our American associates in aviation journalism. *Participii criminis*, or what have you?

Lockheed Shooting Star

To offset the accomplishment of the *Shooting Star*, *The Aeroplane* trots out the Gloster *Meteor* with the statement that it holds both the "fastest speed and the second-fastest speed records."

Maybe so. We won't argue that point. But tailwind or no tailwind, if a plane cracks a record—even a British craft—we expect to print the news in AIR TRANSPORTATION. And the next time we receive a missive from London stating that a British plane smashed the speed mark from London to Karachi (or any other point on the globe), we shall expect the following:

"P. S.—A tailwind of X miles an hour helped us along" . . . or . . . "P. S.—The tailwind never showed up."

SUCCEEDS HAFFENDEN

Commodore Frederick George Reinicke, USN (Retired), who has succeeded Charles R. Haffenden as Commissioner of Marine and Aviation for the City of New York. A graduate of the United States Naval Academy, Class of 1910, he played guard on the football team, was a member of the crew, and held the heavyweight boxing championship. In his 39 years of active service in the Navy, he has performed duties in Atlantic, Pacific, and Asiatic waters. During World War I, as commanding officer of a four-stack destroyer, he was awarded the Navy Cross for his anti-submarine work. He has also served as graduate manager of athletics at the Naval Academy, head of the Navy Public Relations Department, and executive officer of the U. S. S. Tennessee. Promoted to captain in 1939 and retired two months before the outbreak of the war in Europe, Reinicke was recalled to establish the office of the Port Director in charge of the Naval Transportation Service, Third Naval District. He was commissioned a commodore in 1943. In addition to the Navy Cross, he holds five campaign medals of which one was awarded to him by the British Government.

The Role of Waxed Paper in Air Transportation

(Continued from Page 10)

most foods served on flights are pre-prepared at the base before takeoff, then wrapped in waxed paper and placed in special compartments in the galley where they are kept fresh and tasty until served.

Meats are prepared at the base and packed in large vacuum containers where they are kept hot until served. And to maintain out-of-oven flavor, the containers are lined with waxed paper.

Salads have proven particularly popular with airline passengers, so they are usually served both with hot meals and sandwiches. To simplify the preparation of each salad, and to minimize spoilage, different ingredients required to make them are pre-prepared at the base and wrapped separately. Then, as each individual salad order is received, the necessary ingredients are available, fresh and crisp, ready for immediate use. For light eaters, sandwiches of all kinds are available.

To round out a well-balanced menu, cake, rolls and other pastries are served for desserts and in-between snacks. These delicacies are individually wrapped in waxed paper at the base before flight.

Civil Aeronautics Board Awards Latin American Routes to Nine United States Airline Companies

The award of Latin American routes to nine United States airlines pointed up the Civil Aeronautics Board's policy of competition in international air transportation. Until now the routes were served almost exclusively by Pan American Airways. At the same time the CAB denied applications of steamship lines to participate in air commerce.

New routes have been awarded to the following airlines: American Airlines, Braniff Airways, Chicago and Southern Air Lines, Colonial Airlines, Eastern Air Lines, National Airlines, Pan American Airways, and Pan American-Grace. The following certificates were granted:

American: To operate between the terminal point Mexico City and the intermediate point Monterrey, and (a) beyond Monterrey the terminal point El Paso, and (b) beyond Monterrey the intermediate point San Antonio, and the terminal point Fort Worth-Dallas.

Braniff: To operate (a) between the terminal points Houston and Asuncion, Paraguay, via the intermediate points Havana, Balboa, Bogota, Quito, Guayaquil, Lima, La Paz, and (b) beyond Asuncion, the intermediate point Sao Paulo and the terminal point Rio de Janeiro; and (c) beyond Asuncion the terminal point Buenos Aires. This is subject to the condition that Havana is to be served only on flight originating or terminating at points in South America.

Chicago and Southern: To operate between the co-terminal point Houston and New Orleans and the terminal point San Juan, Puerto Rico, via the intermediate points Havana, Camaguey, Port-au-Prince, and Ciudad Trujillo; and beyond the intermediate point Havana, the intermediate points Kingston, Aruba, Curacao, and the terminal point Caracas, Venezuela. This is subject to the condition that no local service is to be rendered between Houston and New Orleans.

Colonial: To operate between Washington, D. C., and the terminal point Bermuda, and between the terminal points New York and Bermuda.

Eastern: To operate between the terminal points New Orleans and Mexico City, and between the terminal points Miami and San Juan.

National: To operate between the co-terminals Tampa and Miami, and Havana.

Pan American: To operate between the co-terminals Houston-New Orleans and Guatemala City via Merida; between the terminal points New York and San Juan. Amendment of certificate authorizes the airline to serve Santiago in lieu of Antilla between Camaguey and Port-au-Prince; Sao Paulo, between Rio de Janeiro and Porto Alegro; Balboa in lieu of Cristobal; and Caracas in lieu of Laguaira.

Pan American-Grace: To operate nonstop between Balboa, Canal Zone, and Buenos Aires, via Guayaquil, Lima, and Antofagasta. Amendment of certificate authorizes Panagra to operate between Buenos Aires and Montevideo.

Western: To operate between the terminal points Los Angeles and Mexico City, via San Diego and La Paz.

Tirey L. Ford, chairman of the Sea-Air Committee of the National Federation of American Shipping, called the CAB decisions "another step in a tight monopoly of overseas air transport." He said that "the steamship companies are being denied the right to participate fully in the nation's future."

Braniff Air Freight Tariff Cuts Rates, Classification Of Articles is Eliminated

Braniff Airways' new low air freight tariff reducing rates and eliminating classifications of articles became effective early this month. The simplified tariff ranges from 21.2 cents to 26.5 cents per ton-mile were established in December with inauguration of the airline's air freight program.

The tariff allows reductions for volume shippers. The new rate is 26.5 cents per ton-mile for shipments between 100 and 500 pounds; 25.6 cents between 500 and 1,000 pounds; 24.7 cents, 1,000 to 2,000 pounds; 24 cents, 2,000 to 3,000 pounds; and 21.2 cents over 3,000 pounds.

Pick-up and delivery service to and from the airport is furnished at the additional rate of 35 cents per 100 pounds or 75 cents minimum per shipment. By arrangements with individual trucking firms, this service is provided in all Braniff cities and adjoining communities.

All-cargo C-47s are now being used by the airline for both chartered operations and less-than-plane load shipments of cargo.

For over fifty years export freight shipments have been handled by barge or by rail or by motor truck, and by sailing ship or by steamer. Now it is the AIR—and through a new streamlined department created to serve you.

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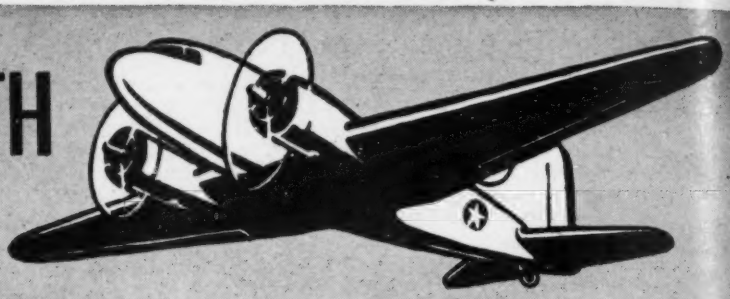
The 439TH ...In War and Peace



Here's the fourth in a series of Troop Carrier Group stories which highlight the outstanding cargo- and passenger-carrying operations of a great Army Air Force Command during the past war. You've read all about the 316th, the 435th, and the 440th. Now read about the 439th, and know why air cargo will play a major part in the more peaceful pursuits of international trade.

A lone two-engine Douglas C-47 troop carrier transport plane settled wearily on a runway at Sedalia Army Air Field, Warrensburg, Missouri. It was June 26, 1943. The AAF's 439th Troop Carrier Group, activated June 1, 1943, by the Troop Carrier Command and destined to spearhead Europe's major invasion, had received its first plane.

It was a sacred moment for members of the Group, and for the first time a feeling ran through the organization that it was becoming a flying outfit instead of just a roster. It was a portentous moment too, for this lone, scarred C-47 was the first of a trickle that swelled to a devastating torrent against the enemy.

Then, with weeks of hard training behind, the Group, comprising the 91st, 92nd, 93rd, and 94th Squadrons, moved on August 2, 1943, to Alliance Army Air Base, Nebraska, and entered its second phase of training. Here, more of the greenness of the Group was worn away and the men were fused into a working unit. Through glider towing, cargo towing and hauling, paratroop drop missions, formation flying and hundreds of smaller operations the men of the 439th gained the experience that was going to give them a decisive advantage over a rugged and determined enemy.

VITAL SUPPLIES—One of the big jobs of the 439th was the hauling of badly needed supplies to forward zones. Shown above are gas-filled containers being loaded into a C-47. Such cargoes helped to keep American tanks in action.

After reaching England, the 439th moved twice before getting settled down to a semi-permanent base at Upottery, in South England, and embarked on "the-real-thing-training" program as a tactical transporting organization under the famed Ninth Troop Carrier Command.

In June, 1944, after one year of existence, the big moment came for the 439th in Operation Bigot, the tremendous invasion of the European continent on the Normandy beaches. Hordes of Yank paratroopers were dropped by the Group on the Nazi-held areas of France in the Southeastern section of the Cherbourg Peninsula, just south of St. Mere Eglise, hours before the ground forces stormed the beach on D-Day. Only a few planes were lost, and the 439th suffered few casualties despite the heavy barrage of anti-aircraft fire aimed at their planes.

On D-Day plus 1, gliders of the 439th winged their silent way over the channel to their landing zones deep behind enemy-held fortifications. Again the troops and cargoes transported by the Group wrought havoc among the Nazis.

Other missions comparable in size to the Normandy invasion followed soon after the initial combat experiences of the 439th. A mission given the code name of Operation Transfigure brought about the vertical envelopment of Nazi-held territory in France in August, 1944. Belgium was struck in December, 1944, in Operation Repulse. After this

mission came Operation Market, September 17, and the terrific Operation Varsity, which was executed in the final weeks of the European war, and delivered a tremendous blow to the reeling Nazi forces near Wessel, Germany, during March, 1945.

Plans were being formulated on even larger missions than Varsity, but due to the imminent collapse of the German war machine, were delayed and finally canceled.

Officers and men of the Group were not only outstanding in the air, but often displayed courage and initiative far beyond their regular duty by taking part in the ground fighting. Flight Officer Virgil S. Neal, a glider pilot of the 94th Squadron, won the Bronze Star Medal in the Varsity mission by heroic action after landing his glider safely. Single-handedly Neal charged an enemy aid station in the vicinity, capturing over 55 enemy personnel in addition to the medical staff. He then turned over the aid station to an American medical corp officer who was being held prisoner by the Germans, thereby neutralizing an enemy post and providing injured Allied personnel with the facilities of a front-line aid station.

Along with the heroism of the men of the 439th Group, many technical developments marked the superior standards maintained by the ground personnel. Sergeant John K. Doyle of the 91st Squadron, serving as a section radar chief, perfected a radar beacon arrangement that made possible formation flying under instrument conditions. The idea was adopted for use by the entire Troop Carrier Command.

After V-E Day the 439th Group was selected as one of the units to be sent directly to the Pacific theater. The Group was set for the long journey to the new theater when the surrender of Japan was announced. Soon after this announcement the Group was ordered to return to the United States, which it did, arriving finally at its old original home at Sedalia Army Air Field.

CARGOES OVER GERMANY—Two of the 439th's C-47 cargoplanes over German territory as viewed from the window of another cargo-carrying Skytrain of the Group.

With the ending of the war the record that the Group attained overseas did not end with its return to the United States. A famous peacetime record is being established by the Group in the peaceful skies—a different kind of fame—a record of getting the job done despite the difficulties, and getting it done on time. A peacetime job that calls for the highest degree of organization, efficiency, expert piloting and safety.

In peacetime missions, one of the most outstanding has been the Group's job of transporting vital cargo in the continental United States for the Army-Navy atomic bomb tests designated as Operations Crossroads. Air crews of the 439th have already flown over two-and-a-half million passenger air miles without a single mishap to set another record in the annals of AAF safety in flight.

Established the latter part of January, 1946, to facilitate the rapid movement of high priority personnel and equipment, the coast-to-coast Troop Carrier "airline" transported more than 400,000 pounds of cargo in addition to carrying 3,400 passengers.

Another peacetime mission that utilized the skills acquired by the crews of the 439th Group was the aerial supplying of the project known as Exercise Musk-Ox. February 14, 1946, this mission was set up with the two-fold objective of testing Army and Air Force equipment and of probing the frozen wastes of Northern Canada. Musk-Ox was a non-tactical project. Beginning the middle of February the expedition moved northward under the eerie light of the Arctic moon from Churchill, Canada, and took the men on a trek of 3,130 miles lasting 81 days. The Musk-Ox mission depended on supplies from the air, delivered by planes and crews of the 439th Group of the AAF and the Canadian RCAF.

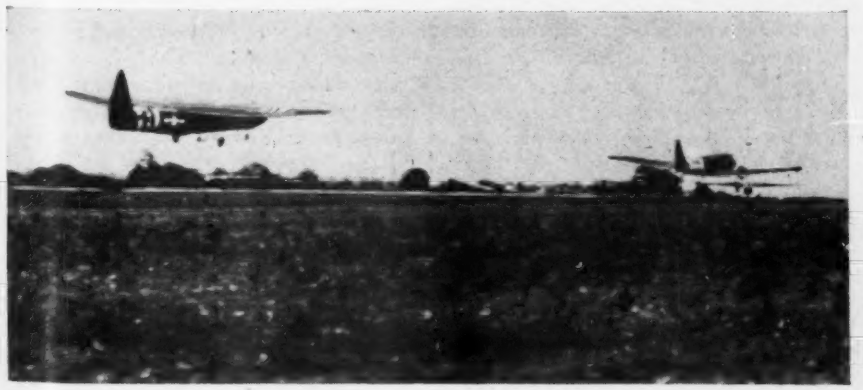
Icy aerial supply missions four to seven times a week dropped food and fuel parachute to the expedition. Due to extremely dangerous weather hazards the men of the 439th making the missions exerted every technique they knew to get the vital supplies to the party. Added difficulties hampering the supply missions was the locating of the party traveling through the swirling snow.

Still another peacetime mission of the 439th, January 24, 1946, was under the command of Lieutenant Colonel William D. Keller for a mission to Bogota, Colombia. A total of 13 crews took part in the project, which was to ferry cargo aircraft to the Colombian Air Force, and remain there to instruct the Colombian pilots in the techniques of flying transport planes.

Battle honors of the 439th Group are as follows:

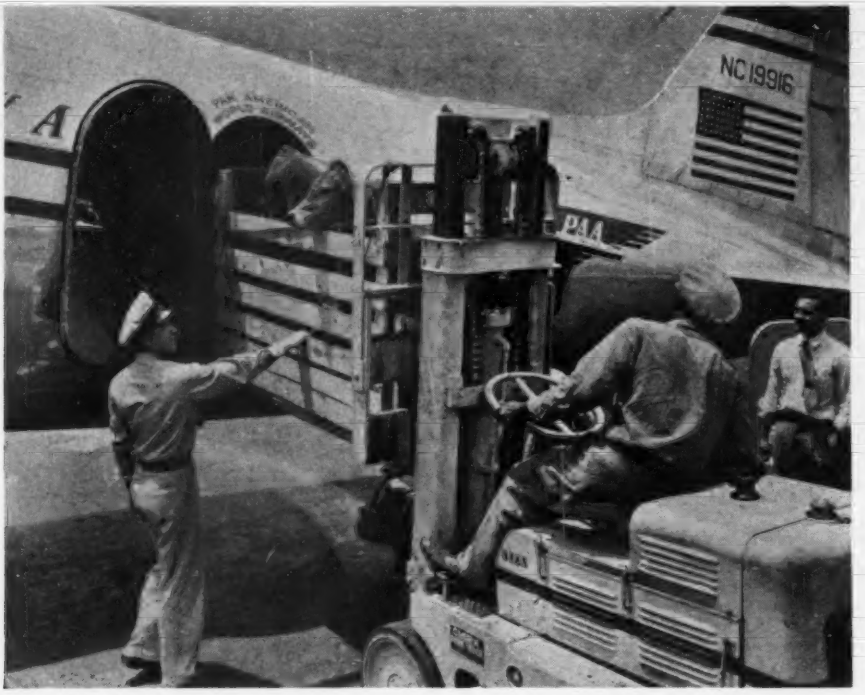
Battle stars have been issued to mem-

(Concluded on Page 55)



TOWING JOB—Giant Horsa gliders, many of which were flown by Yank glider pilots in several of Europe's historic invasions, shown as it is towed off an English field by a C-47 of the 439th Troop Carrier Group.

No Cargoes are STRANGE



FOR POINTS SOUTH—Freight handlers move a calf into the cargo compartment of a Pan American Clipper with the aid of a Clark fork truck. Cattle are being shipped to Latin America for breeding purposes.

JUNGLE-BORN—Jinx, four-month old ocelot, who recently made a trip from Nicaragua to the United States via Pan American air express. The animal was inoculated against rabies before entering this country.

AIRBORNE CHICKS—Baby chickens are always good air express candidates. They do not eat during the first three days of their lives, and weigh less than fertile eggs.

THESE days a Pan American World Airways System air express office takes on the flavor of a country fair. Calves bawl, chicks chirp, fish splash in tanks, and in between is an assortment of odd and colorful articles on their way in and out of this country.

The country fair reference is more important than just a nice descriptive term. Pan American's air express actually has become what the old country fair used to be . . . a means of exchanging goods and livestock to the mutual benefit of all concerned. And almost as rapidly as from hand to hand.

Within the last months the first cattle have been shipped by air from the United States to Latin America. Literally, one bull calf was shipped from Miami, Florida, to Kingston, Jamaica, and a heifer was flown from Miami to Bogota, Colombia. That doesn't sound like much of importance. But remember that 16 years ago a test shipment of fertile eggs was flown to Latin America. That shipment was a small item by itself. Now look at what's happening today. Hundreds of tons of fertile eggs are being shipped to Europe to replenish devastated poultry farms. Space has been reserved on Pan American aircraft between the United States and Latin America for millions of baby chicks. Half a million baby chicks were carried between California and the Hawaiian Islands in a four-month period this year. Thousands more have gone from Seattle to Alaska. The air shipment of those few eggs has developed into a business involving most of the large chicken breeders in the country. And the same will be true of the two young cattle.

The purpose of shipping these cattle south was for breeding, just as the eggs were shipped 16 years ago. The first bovine to take the air journey was a young bull named Challenger Actor Fox, a 570-pound pedigreed Jersey. The young bull was born in Pelham, Georgia, and owned by J. J. Harris. Challenger Actor Fox was shipped to Dr. C. D. Johnston, who owns a Jersey cattle ranch at Black River, Jamaica.

The important thing is that the young bull was in Jamaica, 600 miles from Miami, in three hours and 45 minutes.

Second of the two to take the air trip was Mill Cold Spring May Var, born March, 1946, at Brace Farms, Lone Rock, Wisconsin, a Holstein-Fresian. She was shipped from West Bend, Wisconsin, by W. J. Reynolds, of the Colombian-American Agricultural Products Company. The young lady went by train from Wisconsin to Miami and there boarded a plane. Her plane left Miami at five in the morning of May 1, and was in Bogota by teatime that very afternoon. Formerly cattle were shipped to Bogota via the Canal Zone to Buonaventura; then to a train, a bus, and finally walked the last few-score miles. At the end of the six weeks journey required, they were no longer the fat, sleek, healthy cattle they had been. They acquired ticks and were subject to pneumonia. Sometimes loss percentages were extremely high.

The young heifer was shipped to Alvare Munoz, a Colombia cattle breeder. Munoz says that this shipment was made to prove the feasibility of transporting young cattle by air. Now that this is proved, he says, he expects to make regular shipments of pedigreed

cattle for sale to his countrymen and to improve the breed of the Colombian cattle.

Harris, who shipped the bull, stated his belief that these cattle air shipments would open new fields in cattle breeding in Latin America.

"Latin American countries," he said, "have been sending cattle experts to the United States for years to import prize stock to improve their herds. Air transportation will help them immensely."

He expressed the opinion that Clipper Express shipments "would facilitate distribution of Jerseys—or other good stock—all over the world to improve herds in all foreign countries." Harris intends to ship cattle to all parts of Latin America.

Glen M. Householder, director of the Holstein-Fresian Association of America, is most enthusiastic about the shipment. Regarding the calf, he said:

"Cold Spring May Var can well be expected to establish a cow family south of the border the like of which Latin American countries have not yet worked with."

The history of the shipment of baby chicks and fertile eggs by air express is a fascinating story that began because the Latin American was so fond of cock fighting he crossbred his chickens with fighting stock until there wasn't a chicken in the whole of Latin America fit for eating. Early attempts to improve the breed and taste of the toughened fowl failed to a great extent. Losses and costs were so high in shipping by sea, and they were discontinued.

Then somebody got the bright idea of shipping fertile eggs by air. That was in 1930. Twelve dozen eggs went in the first shipment to Latin America and two of the 144 were lost. An export business in eggs started.

Later someone struck upon the idea of shipping baby chickens instead of eggs, finding their weight was half that of an equal shipment of eggs. Poultrymen and engineers got together and constructed a flying home for the chicks with air conditioning, removable floors, troughs, and other comforts.

The ultimate in chick shipments to date was reached when shippers began to take advantage of the fact that chicks do not eat or drink for the first 72 hours of their lives. Shipment during that period results in a further saving of 20 percent in weight.

Cards for Chicks

Pan American World Airways Clipper Express rules now provide that each chick shipment must have a card attached attesting to the date and time of birth. During the Winter and Spring 400,000 eggs went by Clipper alone to London en route to Prague. Eggs were shipped instead of chicks because delivery could not be made inside of 72 hours.

Pan Am today is launched on a program to open all parts of the world to the shipment of American goods on fast, dependable schedules and at hitherto unheard of low rates. These schedules, many of them already operating, will provide mass transportation at prices well within the range of small as well as large businesses.

Economists say that parts of the world will be brought forward decades in the space of a few years because of air express. Formerly inaccessible regions such as the interior of China, Africa, and remote parts of Asia will be supplied by air. Industries will be built up, for air express men know all the where's and how's of packing the largest machines inside a plane. Magazines and books will come in to show remote people how the rest of the world lives. And the luxuries will follow along on the heels of trade and learning.

Overseas air express started with a shipment of yeast by Pan Am planes from Mexico City to Tuxpan, Mexico. The first year 105,626 pounds were flown. In 1941, 1,700,000 pounds of air express went via Clipper. The airline looks forward to yearly shipments of 30,000,000 pounds when postwar plans have fully matured.

These shipments will consist of goods from all parts of the world. Cattle, chicks, magazines, flowers, rope-soled shoes, drugs, furs, and the many other items that now comprise the Pan Am's air express shipments will still be shipped, but as the airline contacts the unopened parts of the globe, new types of goods will join them. Goods from China and India and Africa; spices, perhaps, and ivory, and many of the things that made these places a glamorous mystery to the Europe of the Middle Ages. These things will come to us by air express in hours instead of in weeks or even months. Larger supplies will be available. Many scarce and costly items may become commonplace because of the ease and speed of transportation.

American businessmen will lead the way in opening up new areas and will follow up with rapid shipments via air express. American brand names and general products will become familiar in newly opened regions. All markets will be available to all firms by this means. And rates will drop to levels that will make air shipment with the bonus of great speed the most sensible way of doing business.

APL Grants Fellowships

The Air Power League in cooperation with the publishing house of Harper and Brothers, has granted writing fellowships to three well-known authors to chronicle AAF history during the war: Vern Haugland, William Laidlaw, and Harold B. Hinton.

Panair Flies to Europe

Weekly flights from Rio de Janeiro to the English and French capital cities has been inaugurated by Panair do Brasil. *Constellation* equipment is used. Flights to London have intermediate stops at Recife, Dakar, Lisbon, and Paris.

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SHIPPING TIME SAVED: 39 DAYS

OFFICIALS DISCUSS the New York-Medellin flight of cattle via International Air Freight as cargo handlers move three into position. Inset shows six of the 10 head inside the cargoplane.

TEN head of cattle—some 3,000 pounds of beef—were flown last month from LaGuardia Field, New York, to Medellin, Colombia, cutting the usual transit time by about 39 days. International Air Freight, which transported the first air cargo composed entirely of cattle, took off from LaGuardia at 2 p.m., arriving at its destination at 10 o'clock the following morning.

The six bulls and four heifers, valued at $20,000, were purchased by Francisco Roldan, a dairy farmer in Medellin, from members of the Ayrshire Breeders Association of Brandon, Vermont. A specially fitted DC-3 made the trip, stopping only once—at West Palm Beach, Florida, headquarters of the charter airline—to feed and water the stock.

International Air Freight, whose United States agents are the Gondrand Shipping Company, 11 Broadway, New York, is headed by K. Parker. The airline was organized a few months ago, and has been making regular charter flights between the United States and Colombia. There have also been freight runs to other points in Central and South America.

A. J. De May and Company, freight forwarders, 28 Water Street, New York, also participated in the shipment, taking care of the forwarding arrangements and paper work.

Jerusalem Will be Served By Trans Caribbean Airways

Direct non-scheduled flights linking New York, the Caribbean area, and the Holy Land, will be inaugurated by Trans Caribbean Airways within the next 60 days, according to an announcement made by O. Roy Chalk, president of the airline. Trans Caribbean will operate a fleet of four-engined Douglas *Skymasters* on this route under the supervision of Brigadier General Lawrence J. Carr, director of operations. Carr also heads the Institute of Air Transportation, Inc.

Chalk also revealed that the airline has filed an application with the Civil Aeronautics Board for scheduled service between New York and Jerusalem, terminal points, with intermediate stops at Philadelphia, Washington, Jacksonville, Miami, Havana, San Juan, Belem, Natal, Dakar, Casablanca, Tunis, and Cairo. Application has been made at the same time for an alternate route with Miami and Algiers as terminal points.

Aviation Section Elects Officers

Officers for the year 1946-47 have been elected by the Aviation Section, New York Board of Trade, according to an announcement made by Daniel H. Ecker, executive secretary.

John F. Budd, reelected chairman of the Section, is publisher of AIR TRANSPORTATION; Herbert J. Lyall, new vice chairman, is regional director of passenger sales for American Airlines; and Warren L. Baker, treasurer, is manager of the Socony-Vacuum Oil Company's Aviation Division. Ecker and George B. Boochever were reelected to the respective offices of executive secretary and general counsel.

Reappointed consultants are: J. Kirk Baldwin, manager, *Airports Directory* (airports consultant); Colonel L. H. Brittin, director, Evans Transportation Research (air transportation consultant); Jerome Lederer, chief engineer, Aero Insurance Underwriters (aeronautical engineering consultant); and James A. Leftwich (public relations consultant).

Functions and Setup Of OTCP Reorganized

The State Department's Office of Transport and Communications Policy, which comprises the Aviation, Shipping and Telecommunications Division, has realigned its organizational structure "to carry out more effectively the responsibility for the initiation and coordination of policy and action concerning the international aspects of transport and communications within the jurisdiction of the Department of State." The Aviation Division will consist of a Traffic Section, Shipping Law and Treaties Section, the Inland Transportation Section, and Seamen's Affairs Section.

Shell's Aviation Booklet In its Second Printing

AIR TRANSPORTATION has been notified by the Shell Oil Company that the first printing of *Civilian Wings for Everyone* has been exhausted, and that a second printing is now underway. Readers who have requested the booklet from AIR TRANSPORTATION's Special Service Department, and who have not received it to date, may expect to receive their copy in the near future. Those desiring copies of the free booklet are asked to file a request with the Special Service Department of this magazine, 10 Bridge Street, New York 4, N. Y.

"I'M QUA-QUA"

This Siamese cat is a very particular feline. When it arrived at LaGuardia Airport in New York after having been air expressed from California, Florence Richter (above), employe at the Railway Express Agency at the airport, found the following note attached to the cat's crate: "My name is Qua-Qua. Although I look sinister, I'm really a sweetie pie. Please, mister, will you feed me out of my little lunch sack? Give me plenty of water, and if you want to, I'd love to have you take me out and let me stretch. Please don't keep me in a place where it's awfully hot, as my mistress taught me to enjoy fresh air, if not in a draught. It might surprise you to know that I've never, never bitten or scratched a person." Well, all in a day's work.

IT'S AN *Air* WORLD

[REG. U. S. PAT. OFF.]

By L. A. GOLDSMITH, *Economic Analyst,* AIR TRANSPORTATION

Lima, capital city of Peru, an aviation natural as a radiating center for business air transportation to points, East, North, and South.

VICTOR R. Kohnstamm, president of V. and E. Kohnstamm, Inc., New York City, has just returned from a successful business trip to all of the South American countries with the exception of Paraguay. The Kohnstamm firm manufactures flavorings and colorings as well as other products for the bottling trade, and has been exporting to many parts of the world since 1934.

Previous to this trip, Mr. Kohnstamm visited Latin America and the Caribbean area regularly since 1939, sometimes twice a year. On his latest trip there were any number of angles which make the results quite amazing. However, because of space limitations, it is only possible to highlight here the most outstanding of these factors as regards aviation, air transporttaion and air travel.

First of all there is the highly significant question of time. Mr. Kohnstamm was away three-and-a-half months—roughly 105 days. Only 3¾ days of the total were spent *in actual flying,* leaving 101 days for business and leisure. In other words this adds up to practically one day's travel time for each month spent away from his New York headquarters. To put it another way, you could say that his air travel time averaged out to a fraction less than *52 minutes a day* for each of the 105 of his trip. Amazing!—almost fantastic, when you stop to consider that 52 minutes a day is considerably less time than it takes the average suburbanite in his daily commuting to and from home and business. Even going via subway, bus or car to and from one's daily grind in larger cities such as New York, Chicago and Philadelphia would, as a rule, take more than 52 minutes daily.

As proof of Mr. Kohnstamm's belief in the value of being right on the spot to help boom his business in Latin America, he plans another trip very soon. This time he intends taking his wife and two children, and stay comparatively put for about six months. But staying put does not mean he will forsake air travel. To make his trip most effective, and yet have time out to live a normal family life, he intends to make Lima his headquarters. He will then airplane out of the Peruvian capital on frequent business trips to far-flung places just around the corner in flight hours.

On his most recent trip, Mr. Kohnstamm was greatly impressed with the fact that Lima is a "natural" as a radiating business center for air travel to points East, North, and South, throughout Southern Continental America. While we may not realize it so clearly in the United States, it is possible to start out from Lima by airplane and *reach practically every major city in South America in a day at the outside,* and most places are accessible from the city by air in a *matter of hours.* The one city Mr. Kohnstamm does not

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include in the out-from-Lima-by-air-business-trips, is Caracas, Venezuela. He considers it more advantageous to visit Caracas as part of a Caribbean tour, as the mainland of Venezuela is easily reached when traveling the air routes which cover the West Indies and the general Caribbean area.

Another angle which impressed Mr. Kohnstamm as a distinct trend in Latin America is the personalized service starting up under private ownership in many of these countries. A good many of these are owned and started by ex-GIs who were in the United States Army Air Force and saw service in these countries. Now that they are civilians once more, they see big opportunities to start in business for themselves and cash in on unexplored possibilities.

In Ecuador Mr. Kohnstamm's attention was especially called to one of these new personalized services. It is owned and operated by a Negro ex-GI. He calls it La Andesa, and flies two big cargoplanes from Guayaquil over the Andes to interior points. He carries all types of freight, ranging from automobiles and tractors to dairy products. The Negro veteran is doing well, and is a welcome figure in Guayaquil.

Mr. Kohnstamm tells me that when his company was inaugurated in 1934, they just went along in a leisurely fashion until 1939, with export sales amounting to about three percent of the total sales. Then he decided to go after export business more vigorously. He initiated various sales promotional procedures on a sound business basis, concentrating at that time on Latin America because of the war situation. As a result, sales leaped ahead. His latest trip showed cumulative sales volume to a point that the increase is virtually phenomenal. Off the record, Mr. Kohnstamm gave me the actual figures of the firm's mounting yearly sales volume in the export trade. For publication I am obliged to be somewhat noncommittal. Putting it mildly, however, I am allowed to say that their export sales have reached more than 10 times the 1939 ratio. Their domestic business has not been standing still during this period, so that the export increases in volume and ratio is still more signicant.

For instance, as an example of profitable results on his recent trip one order obtained from a single account in Colombia, *paid for the entire cost of his three-and-a-half month trip.* As considerable business was transacted with several dealers and distributors in each country, you can figure it out for yourself that the trip must have been highly profitable. Making a great circle route from Miami and return, numerous cities

Victor R. Kohnstamm

were visited with side trips to nearby territory from the main stopovers. The shortest stay in any one place was of a day's duration, as in the case of Port of Spain, Trinidad, and Arica, Chile. The longest stay was over two weeks in Buenos Aires, while 12 days were spent in Rio de Janeiro, eight in Santiago, Chile, and so on varying with the importance of the city or surrounding territory. The main places visited by Mr. Kohnstamm, all of which were reached by air, were as follows:

Starting from Miami, he flew to Ciudad Trujillo, in the Dominican Republic. From there the airplane route was on to Brazil, where his first stop was at Belem, flying on after three days there to Recife, and then to Rio. The last city in Brazil was Porto Alegre in the important state of Rio Grande do Sul. From there he flew to Montevideo, Uruguay, and after six days in that city he landed in Buenos Aires.

From the Argentine capital Mr. Kohnstamm flew to Santiago, and Arica. Bolivia was the next stop with La Paz the main objective. After that came Lima where he made his decision to return as soon as possible and make that city his headquarters for air trips to other South American centers. Guayaquil, Cali, Bogota, and Medellin came next; and from the latter city, the second in importance in Colombia, and considered by many the most enterprising from a business standpoint, a two-hour flight to Barranquilla, on Colombia's Atlantic Coast. From Barranquilla he completed the circle by returning to Miami.

Essair Now Pioneer

Essair, Inc., of Dallas, Texas, has announced the change of its name to Pioneer Air Lines, Inc. The Texas Secretary of State has approved the change.

Three New Groups Are Organized by the ATA

The formation of three committees has been announced by the Air Transport Association to deal with various phases of air transport problems. These are the International Committee, to study the immediate problems in overseas air transportation and make recommendations to the association's board of directors; the Air Mail Committee, which will work closely with the United States Post Office Department in promoting five-cent air mail and other related activities; and an Advisory Committee to supervise the activities of the Shippers Research Division, which recently was set up to study the transport and packaging of hazardous commodities by air.

Comprising the International Committee are C. R. Smith, American Overseas Airlines; T. E. Braniff, Braniff Airways; E. S. Ridley, Colonial Airlines; E. V. Rickenbacker, Eastern Air Lines; R. H. Herrnstein, Northeast Airlines; Croil Hunter, Northwest Airlines; J. H. Smith, Jr., Pan American Airways; G. Vidal, Panagra; C. Bedell Monro, Pennsylvania-Central Airlines; and Jack Frye, Transcontinental and Western Air. One of the airline heads will be selected as chairman. Joseph E. Casey, former Congressman and general counsel of TWA, has been designated as executive director of the committee.

The Air Mail Committee is composed of F. D. Miller, American Airlines; Harry R. Stringer, All American Aviation; P. W. Pate, Delta Air Lines; R. E. Whitmer, Transcontinental and Western Air; and John Hart, United Air Lines.

Among the members of the Advisory Committee are G. K. Brower, American; J. T. Hendren, Pan American; F. B. Quackenboss, United; J. J. Harrington, Northwest; W. A. Weeks, Eastern; and J. D. Lawson, Chicago and Southern.

Harry R. Stringer, who recently retired as chairman of the ATA's Traffic Committee-Air Express, has been succeeded by G. M. Springer, Jr., of Braniff Airways. Springer's vacated post of vice chairman was taken over by R. E. Whitmer, of TWA. Emery F. Johnson, secretary of the Cargo Traffic Section, was renamed executive secretary of the group.

BOAC Constellations To Fly into N.Y. Next Month

The British Overseas Airways Corporation has announced the reopening of its commercial service over the Atlantic between New York and London, beginning next month. BOAC has flown some 10 million miles in transatlantic operation between North America and the United Kingdom since service was inaugurated in 1937.

Lockheed *Constellation* equipment will be used, with two round trips a week. These will be increased to four weekly round trips by August, and a daily service as soon as possible thereafter. The fares filed with the CAB are set at $375 one way and $675 round trip.

London Airport at Heathrow will be the terminal in the United Kingdom, with intermediate stops at Rineanna, Eire, and Gander, Newfoundland. BOAC was the first foreign airline to contract for space at Idlewild Airport, but the fact that the giant New York airport is not yet in operation has forced the British airline to look elsewhere for landing facilities.

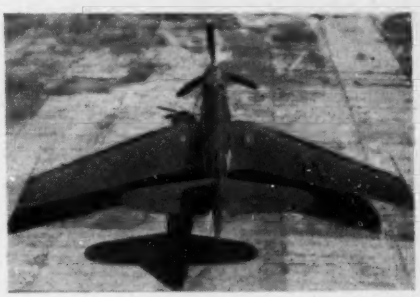
Post Office Department Announces Resumption Of Air Mail Service to Three Far Eastern Countries

AIR mail may now be sent to all destinations in China, Manchuria, and the Netherlands East Indies, although in certain areas there may be delays. No other countries in the Far East have been named by the Post Office Department. Previously the reopening of air mail service to the Philippines had been announced.

United States-Philippine air mail service is limited to articles not exceeding one pound. The rate of postage of 50 cents per half-ounce or fraction thereof. Matter directed to points in China and Manchuria by air is limited to two ounces in weight, costing 70 cents per half-ounce or fraction thereof. First class matter weighing up to four pounds, six ounces, and post cards may be air mailed to the Netherlands East Indies at the rate of 70 cents per half-ounce or fraction thereof. Registry service, costing 20 cents, is available to all of the areas with the exception of the latter territory.

Following is the latest list of air mail postage rates for foreign countries:

Destination	Rate per half-ounce (cents)
Aden	70
Afghanistan	70
Albania	30
Algeria	33
Anglo-Egyptian Sudan	70
Angola (Portuguese West Africa)	60
Argentina	20
Australia	70
Austria	30
Azores	30
Bahamas	10
Bahrein	70
Barbados	10
Belgian Congo	60
Belgium	30
Bermuda	10
Bolivia	20
Brazil	20
British Cameroons	60
British Guiana	15
British Honduras	10
British Somaliland	70
Brunei	70
Bulgaria	30
Burma	70
Canada (per ounce)	08
Canary Islands	40
Cape Verde Islands	55
Ceylon	70
Chile	20
China	70
Colombia	15
Corsica	33
Costa Rica	10
Cuba	08
Curacao: Curacao Island, Aruba Bonaire, Saba, St. Eustatius, St. Martins	10
Cyprus	70
Czechoslovakia	30
Dahomey	45
Denmark	30
Dominican Republic	10
Ecuador	15
Egypt	70
Eritrea	70
Estonia	30
Ethiopia	70
Falkland Islands	20
Faroe Islands	30
Federated Malay States	70
Fiji	40
Finland	30
France	30
French Cameroons	60
French Equatorial Africa	60
French Guiana	15
French Guinea	50
French Settlements in India	70
French Somaliland	70
French Sudan	50
French Togoland	45
Gambia	50
Gibraltar	30
Gold Coast Colony	50
Great Britian and Northern Ireland	30
Greece	30
Guadeloupe	10
Guatemala	10
Haiti	10
Honduras (Republic of)	10
Hong Kong	70
Hungary	30
Iceland	30
India, British	70
Iran	70
Iraq	70
Ireland	30
Italian Somaliland	70
Italy (continental only)	30
Ivory Coast	50
Jamaica	10
Kenya and Uganda	60
Latvia	30
Lebanon, Republic of	70
Leeward Islands: Anguilla, Antigua, Barbuda, Dominica, Montserrat, Nevis, Redonda, St. Kitts, British Virgin Islands	10
Liberia	50
Libya	33
Lithuania	30
Luxembourg	30
Macao	70
Madagascar	30
Madeira Islands	30
Malay States (Nonfederated)	70
Malta	30
Manchuria	70
Martinique	10
Mauritania	45
Mauritius	60
Mexico	08
Morocco (British)	33
Morocco (French)	33
Morocco (Spanish)	33
Netherlands	30
Netherlands East Indies	70
New Caledonia	40
Newfoundland	15
New Zealand	50
Nicaragua	10
Niger	45
Nigeria	50
North Borneo	70
Norway	30
Nyasaland Protectorate	60
Palestine	70
Panama	10
Paraguay	20
Peru	15
Poland	30
Portugal	30
Portuguese East Africa (Mozambique)	60
Portuguese Guinea	50
Portuguese India	70
Portuguese West Africa (see Angola and Portuguese Guinea)	30
Reunion	60
Rhodesia (Northern)	60
Rhodesia (Southern)	40
Rio de Oro	30
Rumania	10
Salvador, El	70
Sarawak	70
Saudi Arabia	45
Senegal	70
Siam	50
Sierra Leone	60
South-West Africa	30
Spain (including Spanish offices in North Africa)	50
Spanish Guinea	70
Straits Settlements	15
Surinam	30
Sweden	30
Switzerland	70
Syria	60
Tanganyika	70
Trans-Jordan	10
Trinidad	33
Tunisia	70
Turkey	60
Union of South Africa	30
Union of Soviet Socialist Republics	20
Uruguay	30
Vatican City State	15
Venezuela	10
Windward Island: Grenada, Grenadines, St. Lucis, St. Vincent	70
Yemen	30
Yugoslavia	60
Zanzibar	



Rear view of the L-39, modified P-63 which the Bell Aircraft Corporation has developed in cooperation with the United States Navy Bureau of Aeronautics. Scientific information is expected to be gained from flights in the L-39 which will be of great value in the future design of aircraft able to pass from subsonic to supersonic speeds.

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The route of the Caravans

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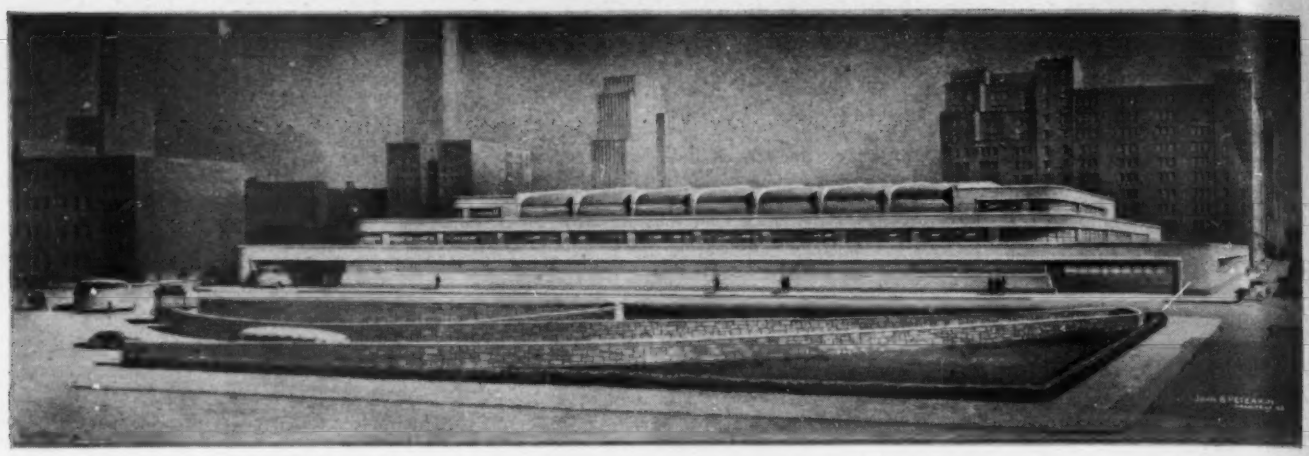

Artist's conception of the $6,000,000 airlines terminal for buses using LaGuardia and Idlewild Airports, to be constructed in midtown New York, adjacent to the Queens Midtown Tunnel. The present terminal at Park Avenue and 42nd Street will be retained as a ticket bureau and for airlines executive offices. Construction of the terminal will start as soon as materials and supplies are available. The site has an area of 80,000 square feet. It will be in two stages, the eastern half to be completed next year. Announcement of the project was made by Mayor William O'Dwyer; Robert Moses, chairman of the Tunnel Authority; and Henry Hill, president of Manhattan Air Terminals, Inc. Building plans for the terminal are being prepared by John B. Peterkin, architect.

Flying Freight, Inc., Will Serve Latin American Areas with Seaplane and Landplane Equipment

ONE of the newer entrants in the chartered air freight field is Flying Freight, Inc., headed by five Americans and a Canadian, and maintaining executive offices at 42 Broadway, New York City. The company's landing field and maintenance base are at Teterboro, New Jersey, with operations bases at Miami and at Kingston, Jamaica, British West Indies.

Incorporated last March in New York, FF will transport freight by air from the latter city, Chicago, and Miami, to the Caribbean area and various points in the northern sections of South America. To serve inaccessible territories which have lakes and rivers, the new air freight carrier will operate a dozen flying boats. In addition, it will use six landplanes for operations where airfields are available.

Heading Flying Freight, Inc., is Ralph F. Masters, of Royal Oak, Michigan, who has a background of sales and organization work with the Great Atlantic and Pacific Tea Company, the Chevrolet Motor Car Company, and similar corporations.

Vice president and general manager is Wallace C. Siple, of Beaconsfield, Quebec, Canada. Formerly flying superintendent and superintendent of civilian flying training in the Royal Air Force Ferry Command, he served as a captain during the war, ferrying supplies to all parts of the world. He organized the first air cargo run from the United States to Africa. Engaged in flying freight in Northern Ontario before the war, Siple is president of West Aeronautical Devices, Inc.; Metal Furnishings, Inc.; Autoplane, Inc.; and Siple Aircraft, Ltd.

Jerry J. Tenhope, of Poughkeepsie, New York, holds the post of treasurer and is also a director of the corporation. He has been in aviation activities for nearly three decades, and during the war served as an RAFFC pilot—captain.

Holding the position of secretary is Arthur M. Sommerfield, a New York attorney, who entered active duty with the United States Army as a first lieutenant of airborne infantry in 1941. After serving for more than two years in the European theatre where he participated as a staff officer in planning and operational phases of the invasion of the Continent, he was released from active duty with the rank of lieutenant colonel.

Directors Hunter C. Moody of Decatur, Illinois, and E. W. Hightower, of Atlanta, Georgia, also are no novice flyers. They have had experience with the United States and Royal Canadian Air forces. Moody operates the Decatur Aviation Company, while Hightower is associated with Briarcliff, Inc., of Atlanta.

In a formal statement by the company, it was stressed that FF is headed by "hard-headed, air-minded businessmen, experienced in air freight operation, adequately financed, fully staffed with sales and operating personnel, carefully selected from fields of air and freight transportation."

"Founders of the corporation have expended approximately $80,000 in a two-year preliminary survey covering the areas it expects to serve," the airline said. "These surveys indicated large volumes of freight in these regions which are available for shipment to the United States. A staff of 10 experienced freight solicitors has made certain in thorough preliminary canvasses, that ample export freight can be chartered for Caribbean and Latin American delivery. Flying Freight, Inc., will be assured of two-way freight loads, thus eliminating empty runs, the greatest obstacle of the air freight industry."

Budd's Air Activities Win Him a Gold Watch

John F. Budd, publisher of AIR TRANSPORTATION, and chairman of the Aviation Section, New York Board of Trade, was awarded a gold watch by the Benrus Watch Company for his "outstanding contributions to commercial aviation." The presentation was made by Julian Lazarus, an official of Benrus, at the two-day convention of the New York State Aviation Council at the Westchester Country Club. Budd is also a director of the Council.

Air Freight Agreement Between REA and NWA Disapproved by CAB

Railway Express Agency's air freight agreement with Northwest Airlines, reported in AIR TRANSPORTATION last month, has been disapproved by the Civil Aeronautics Board. The CAB stated that the existing exemption order under which REA operates does not cover the proposed air freight operation.

It was pointed out by the Board that because of REA's dominant position in the air express field, the public interest requires that the Agency should not be permitted to engage in air freight operations until such time that it can be shown that REA should be permitted to engage in the transportation provided for in CAB Agreement 617.

No action is contemplated by the CAB at the present time. It was stressed, however, that failure to reject the tariff should not be considered as a recognition of the legality of the proposed operation. With respect to the proposal of securing a broadening amendment to REA's present exemption order, the CAB pointed out that it might act favorably on a petition to amend this order to authorize temporary air express operations under the approved modified contract agreements with all air carriers operating under certificates of public convenience and necessity. It was also suggested that it would be appropriate for REA to file an application for air express under Section 401 of the Act, and likewise appropriate to file application with respect to air freight service.

Transatlantic Air Fare Reduction is Proposed

Reductions of approximately 12½ percent in transatlantic air fares have been proposed by the North Atlantic Traffic Conference following disapproval by the Civil Aeronautics Board of the rates proposed earlier this year on the grounds that they were not based on actual operating costs. If approved by the CAB and other governmental agencies, the present New York-London air fare of $375 will be sliced to $325.

AIR TRANSPORTATION Books

AIRCRAFT ELECTRICITY FOR THE MECHANIC—BY CHARLES EDWARD CHAPEL (*Coward-McCann, Inc., 2 West 45th Street, New York; 477 pages; $5.00*). A comprehensive volume embracing the subject in a clear style. It is divided into 30 chapters, well-illustrated with diagrams. Chapel is the author of a number of standard works.

AMERICAN AVIATION DIRECTORY — (*American Aviation Publications, American Building, Washington 4, D. C.; 624 pages; $5.00*). The Spring-Summer number of the well-known directory listing airlines, key personnel, manufacturers, distributors, dealers, repair stations, schools, organizations etc. Several new features are included. Always a good book to have at hand.

THE HOW OF THE HELICOPTER—BY ALFRED H. STEVENS, JR. (*Cornell Maritime Press, 241 West 23rd Street, New York; 58 pages; $2.00*). An attractive, highly illustrated book frankly aimed at the teenager. It's a good job and probably will have a nice reception. The foreword was written by Igor I. Sikorsky.

SELECTING AND OPERATING A BUSINESS OF YOUR OWN—BY GUSTAV E. LARSON, ROBERT H. JOHNSON AND WALTER MAGNES TELLER (*Prentice-Hall, Inc., 70 Fifth Avenue, New York; 364 pages; $3.00*). The title tells the story. Here's some interesting information which should draw a wide audience. The authors have gone through everything, from part-time farming to sawmill business. Don't miss Chapter 11, which is devoted to the aviation service business.

New Pacific Service by PAA

Pan American World Airways services connecting San Francisco and Los Angeles with Auckland, New Zealand, via Honolulu, Canton Island, Suva, and Noumea, temporarily suspended since Pearl Harbor, has been resumed. Fare for the entire trip from either California city to Auckland is $590—a reduction of $60 from the prewar fare.

Lighters in Planes

Automatic cigarette lighters will soon appear as standard equipment in commercial and private aircraft, according to an announcement by the Casco Products Corporation, Bridgeport, Connecticut. Among the aircraft manufacturers whose engineers have drawn up plans for placement of the "pop out" cigarette lighter in passenger compartments as well as the pilot's cockpit, are Cessna, Beech, North American, and Martin.

P.O. Cooperates with CAB

The Post Office Department has notified the CAB that it will participate "actively from their inception in future new route proceedings in which we have an interest."

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LOCKHEED

The Wet Load

The first cargo carried by the *Constellation* was put aboard via a four-inch fire hose. It consisted of 8.8 tons of water. This doesn't sound like a very intelligent choice of payload, but under the circumstances it was.

When Lockheed engineers first took No. 61 (the test *Constellation*) into the air, they wanted to know how the ship reacted to shifts in its center of gravity. So they originated and installed a system of water ballast tanks. The interior of the cabin looked like a cross between a hardware store and an aquarium.

By merely turning various valves, engineers could shift a ton or two of load from here to there in flight. Much easier than lugging sandbags around, and a lot more accurate. And since flight test costs on the *Constellation* ran to about $6200 an hour, the system more than paid for itself by speeding up the whole test program.

This rig, another example of the old Lockheed moxie, proved to engineers that the *Constellation* is a remarkably stable plane. More so, in fact, than any other large transport.

L to L for L

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[REG. U. S. PAT. OFF.]

AIR CARGO TRANSPORT

Operating revenue of Air Cargo Transport Corporation increased 114 percent for the month of April over the preceding month, and 70 percent for the month of March over February, it was disclosed in a letter to stockholders by H. Roy Penzell, president.

AIR EXPRESS, REA

Air express shipments gained 13.4 percent in the first quarter of 1946 over the same three months last year, the Air Express Division of the Railway Express Agency announced. The total of shipments handled was 610,132 as compared with 536,233 in the first quarter of 1945. A 31 percent first quarter increase for international air express was recently announced by the agency.

BRANIFF

Braniff Airways' planes flew a total of 881,065 revenue miles during the month of March, 1946, as compared to 758,429 miles during the preceding month of February, an increase of 16.17 percent. The company carried 40,155 passengers in March as compared to 34,875 in February. The revenue passenger load factor for the month was 88.59, up from 84.41 for the preceding month. Because of improved weather conditions during March, 98.85 percent of the company's schedules were operated. It was pointed out that all four categories of air cargo increased in March over the preceding month: 63,280 pounds of air freight; 335,057 pounds of air mail; 251,493 pounds of air express; and 71,398 pounds of excess baggage.

CHICAGO & SOUTHERN

Chicago and Southern Air Lines, flew 94 percent more revenue passenger-miles during the first four months of 1946 than it did during the same period of 1945. This involved carrying 113 percent more revenue passengers. The airline flew 39,128,000 revenue passenger-miles during the first four months of 1946, an increase of 93.8 percent over the same period of 1945 when the airline flew 20,185,741 revenue passenger-miles.

CONTINENTAL

During the first quarter of 1946 Continental Air Lines operated 15,947,809 revenue passenger-miles, an increase of 93 percent over the same period of last year when the airline totaled 8,224,769 revenue passenger-miles. The month of March showed an increase of 88 percent in revenue passenger-miles with a total of 6,018,490 as compared to 3,185,476 for March. 1945.

Mail and express ton miles showed a decrease for both periods of 18 and 52 percent respectively for the first quarter, compared to the same period of last year, with decreases of 10 and 44 percent for March, as against March, 1945. The losses in mail and express poundage was reported to have been largely due to the reduction of this type of traffic by the Government and industries previously engaged in the war effort.

DELTA

Passenger traffic on Delta Air Lines during April increased 81 percent over traffic during April of 1945—a jump from 21,713 passengers to 39,342. Revenue passenger-miles flown last month totaled 106 percent more than revenue-miles during the corresponding month last year. During April Delta flew 16,699,356 passenger-miles.

FAIRCHILD

Reporting on operations of Fairchild Engine and Airplane Corporation for 1945, J. Carlton Ward, Jr., president, advised stockholders in the annual report that total sales for the year amounted to $41,831,481 as compared with $93,212,963 in 1944.

Net income of the corporation for 1945 amounted to $688,034 after $637,509 of Federal taxes less postwar refunds. This compares with net of $1,173,123 in 1944 and represents 1.6 percent of sales compared with 1.2 percent in 1944. Earnings were 34 cents per share in 1945 for 1,815,787 common shares compared with $1.12 per share for 1,042,735 common shares for the previous year. Consolidated net working capital was nearly doubled in 1945. On December 31 it was $11,740,417 as compared with $5,902,718 a year earlier. Approximately $4,200,000 of the added working capital represented the proceeds of a public offering of preferred stock.

The corporation had a backlog of unfilled orders at March 31, 1946, of $72,500,000 not including letters of intent estimated at $1,600,000. This compares with $83,000,000 at December 31, 1944, and includes principally orders from the Army for the C-82 *Packet*. The contract for these planes was increased early in 1945 and the quantity has since remained unchanged, with deliveries scheduled to continue until mid-1947.

NORTHWEST

Total operating revenue of Northwest Airlines for the three months period January 1 through March 31, 1946, was $3,330,562.17. This report also revealed a loss of $234,949.19 for the quarter before income taxes but after deduction of special reserves. Net loss, after deduction of all charges was $89,197.40.

The airline had the best express-carrying April in its history when it carried 262,387 pounds a total distance of 161,056,217 pound-miles.

This was 77,012 pounds and 49,817,372 pound-miles more than the April, 1945, total of 185,375 pounds and 111,238,845 pound-miles. It was well ahead also of the March, 1946, figures of 200,537 pounds and 132,853,227 pound-miles.

UNITED

Revenue passenger-miles and revenue airplane-miles operated by United Air Lines in April were the highest in the company's 20-year history. United flew an approximately 86,301,000 revenue passenger-miles during April, as compared to 69,272,606 in the previous month and 43,269,166 in April, 1945. Revenue airplane-miles were estimated at 4,460,530 as compared to 2,925,767 in April a year ago.

One Class Freight Tariff Filed by TWA Offers Joint Rates with Four Airlines

Trans World Airline has filed before the Civil Aeronautics Board a revised freight tariff offering interline rates with four other airlines: Braniff Airways, Continental Air Lines, Western Air Lines, and Inland Air Lines. Producer-to-consumer service for more than 700 communities is provided in a single class tariff, and rates would be effective June 21.

Robert E. Whitmer, director of cargo sales for TWA, declared that "the combination of carriers concurring in the new tariff offers to shippers and East-West-North-South nationwide common carrier air freight service which has never been equaled before."

The proposed tariff is based on airport-to-airport rates approximating 26.5 cents per ton-mile, with separate charges for pickup and delivery. Current rates are within four classifications, ranging from the foremention figure to 38.5 cents per ton-mile.

Whitmer said that the revision of the rate structure to one class is required by competitive circumstances. He explained that "it does not indicate TWA's disavowal of rate classification," and that the company is "convinced that future air freight tariffs will require establishing class rates for different commodities."

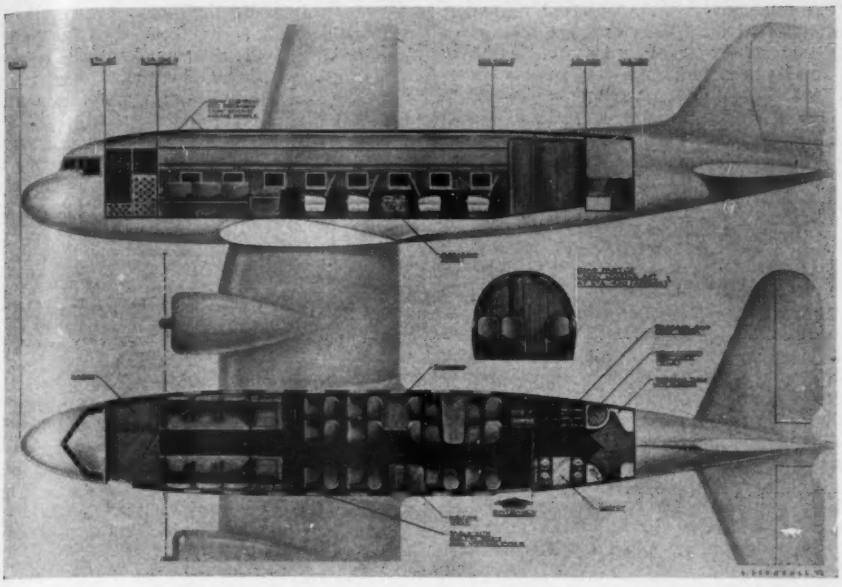
It was last July that TWA inaugurated air freight service to five major cities. Last January, as reported in AIR TRANSPORTATION, the airline entered into an interline agreement with Continental.

TWA is also seeking a local commodity rate tariff for fresh fruits and vegetables. Sample rates offered in this tariff are per 100 pounds from Los Angeles, Fresno, or San Francisco, to Boston, $20.25; to New York, $19.50; and to Chicago, $16.50. Minimum cargo carried is 5,000 pounds.

ATA Committee Works Hard At Streamlining Methods

Action taken last month by the Air Transport Association's Traffic Committee-Air Express included authorization to rent 500 square feet of space on a temporary basis at Idlewild; called on the Air Express Division of Railway Express Agency to consolidate all special commodity rates into one publication as well as put into effect shortly a new dispatch record for the purpose of expediting air express traffic, aid in tracing of goods in transit, and improving methods of paper work; and underwrote plans for a new building covering 6,000 square feet to house air mail and express facilities at the Cleveland airport.

DOUGLAS EXECUTIVE-TYPE TRANSPORT



Two views of Douglas Aircraft's new DC-3, business executive airplane, which will be ready for delivery early in July. Postwar variation of the famous airline standard for more than a decade, the DC-3C is offered at the price of $115,000. Deliveries are promised in four months from order date. According to Marshall S. Neal, sales executive of the company, nine such craft have been sold up to the present time. The DC-3C is offered in two interiors: four wide sofas convertible to full-sized berths, or two convertible sofas in the forward section of the cabin. Behind the sofas are comfortable seats arranged with a double row on the right side, and a single row on the opposite side of a wide aisle. Both interiors provide seating for 18 passengers. Standard equipment includes a conference table seating four persons, writing desk, radio, and magazine rack. An airline buffet is located to the right of the aft section, and opposite this is a coat room and baggage space. A well-appointed washroom extending the full width of the plane is at the extreme rear.

Civilian Flying Over Europe, Mediterranean Area Wins PICAO Help

Procedures to aid civilian flying over Europe and the Mediterranean area through the international exchange of weather information and meteorological service were worked out at the European-Mediterranean Route Service Conference of PICAO which took place in Paris last month.

United States Weather Bureau representatives attending the parley were D. M. Little, assistant chief of technical services; and Norman R. Hagen, meteorological attache to the United States Embassy in London. Virtually all of the countries of Europe, as well as Turkey and Egypt, sent representatives to the meeting. Arrangements were made for the briefing of pilots on making weather observations in flight, and on the prompt transmission to ground personnel of the various airlines of observed storms or signs of weather deterioration.

The conference also confirmed the recommendations of the North Atlantic Route Service Conference held in Dublin last February, regarding the establishment of weather ships in the Eastern Atlantic. Information provided by these weather ships is of vital interest to airlines operating in Europe and the Mediterranean, it was said. Other PICAO meetings will be held later to work out similar procedures to aid in routine flying over the Caribbean, Near East, Southwest Pacific, and along other international world airlanes.

New Routes

Aerovias Brasil

TACA Airways' associated company, Aerovias Brasil, has been granted permits by the Argentine and Brazilian Governments to establish a new and complete air transport service between Buenos Aires and Rio de Janeiro, which includes Sao Paulo. The new service, which is expected to begin early next month, will increase TACA's route mileage to more than 23,600 in the Western Hemisphere, the longest of any company operating in that area.

Colonial

Daily scheduled air service to Watertown and Massena, New York, on its New York and Washington to Ottawa and Montreal routes has been inaugurated by Colonial Airlines. The new service marks the first time that these Northern industrial and resort communities have had scheduled air transport. Watertown now has two daily flights between Montreal and Washington and two between Ottawa and Washington; Massena, four daily between New York and Ottawa, except Sunday when there are two, and two daily between Washington and Ottawa and a similar number between Washington and Montreal.

Aviation Fair in Omaha Scheduled for Next Month

The Omaha skies will be humming extra busily next month, with the opening of the World's Fair of Aviation, an event which will combine flight demonstration with the exposition of aircraft.

To be held at Offutt Field from July 18 to 21, the air fair will feature displays of modern aviation developments, such as radar and jet-propeller aircraft; precision flying and fighter maneuvers; and exhibits of captured German and Japanese airplanes and equipment. Both the Army Air Force and the Naval Air Service will participate in displays and flight events, and leading nations of the world will unfold their respective strides forward in the aviation field.

The fair is sponsored by Ak-Sar-Ben, a non-profit civic organization, and proceeds will be divided between the Air Forces Aid Society, Navy Relief Society, and Ak-Sar-Ben's educational and civic activities fund.

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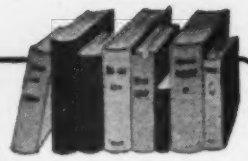

LEGAL NOTES on Air Transportation

By GEORGE BOOCHEVER

Chairman of the Legal Committee and General Counsel to the Aviation Section, New York Board of Trade

THE recent decision in the case of Quinones *et al* v. Life and Casualty Insurance Company of Tennessee, State of Louisiana, Supreme Court Nov. 5, 1945, reported in U. S. Aviation Reports, March, 1945, p. 1, passed upon a type of situation which is bound to arise with increasing frequency as claims on insurance policies multiply with the growth of civil aviation.

Plaintiff, the widow of a member of the Medical Corps of the United States Army, brought suit as executrix and on behalf of her six minor children to recover the principal sum of $20,000 on a life insurance policy in that amount by reason of the death of the assured when a military plane in which he was riding crashed into a mountainside near the city of San Juan, Puerto Rico.

The defendant insurance company set up two alternative grounds of defense under both of which it denied liability for the principal sum stipulated in the policy.

Under the first ground of its defense, the defendant insurance company, relying upon the aviation clause of the policy, admitted liability for $190.80, the amount of the reserve on the policy. Under the second ground of its defense, the defendant company contended that because of the military, naval and air service clause contained in the policy its liability was limited to one-fifth of the amount payable under the insurance contract, namely, $4,000, less the unpaid premium for the remainder of the first year amounting to $206.80, or a net amount of $3,793.20.

Judgment was rendered in favor of the plaintiff for the full amount of the policy with interest and the defendant insurance company appealed from the judgment. The aviation clause relied upon as the first ground of defense reads:

"Aviation. Should the death of the Insured result from operating, or riding in, any kind of aircraft, except as a fare-paying passenger in a licensed passenger aircraft operated by a licensed pilot on a regular passenger route between definitely established airports, only the reserve under this Policy shall be payable and said reserve shall be in full settlement of all claims hereunder."

The military, naval and air service provision of the policy relied on as the second ground of defense reads as follows:

"Military, Naval and Air Service. The liability of the Company shall be limited to the reserve of this Policy, or to one-fifth of the amount payable hereunder on the death of the Insured, whichever is the greater, if the Insured should die while enrolled in military, naval or air service in time of war, whether declared or undeclared; or if the Insured should die as the direct or indirect result of such service, without securing a permit signed by an executive officer of the Company and paying such extra premium as the Company may fix to cover the hazard, any indebtedness on or secured by this Policy, shall be deducted from the amount otherwise payable."

The court said:

"It is unquestionably correct, as argued by counsel for the defendant insurance company, that limitations of liability contained in insurance policies, are recognized and enforced by the courts."

But it pointed out that:

"The controlling question in this case is whether, under a proper interpretation of the language used to identify the class of persons embraced within the exceptions to the general rule of exclusion embodied in the contract. Dr. Quinones, the insured, can be considered as coming within the exceptions so as to permit plaintiff to recover on the policy."

The Supreme Court in upholding the recovery quoted with approval the following statement of the trial judge as to the first defense:

"Under the rule that the aviation clause must be liberally construed in favor of the insured, Dr. Quinones was to all intents and purposes a fare-paying passenger in a licensed passenger aircraft operated by a licensed pilot on a regular passenger route between definitely established airports."

As to the military, naval and air service provision of the policy, the court said:

"The liability of the defendant insurance company in this case turns upon the question of whether or not the insured, with the implied permission of the company, was enrolled in the military service in time of war."

The court in holding for the plaintiff said:

"In this case, the defendant insurance company must be held bound by its waiver of the provisions of the policy with respect to military service, in time of war, when it accepted Dr. Quinones' application and issued him a policy in the sum of $20,000 upon payment of a quarterly premium of $103.40, at a time when it had full knowledge of the insured's enrollment in the military service while this country was engaged in war."

Aeronca Reveals Results Of Poll on Light Plane Buyers

A survey just completed by Aeronca Aircraft Corporation has shown that 40 percent of current and potential purchasers of light personal planes are middle class householders, with wife and children, who intend to use their aircraft chiefly for purposes of pleasure. More than one-third of them, however, will also use the planes in business.

The conclusions were the result of questionnaires answered by a nationwide cross-section of one-third of Aeronca's 1,200 dealers and distributors. Additional details obtained from the survey include:

Fifty-five percent of the persons purchasing or contemplating the purchase of a personal plane already know how to fly. Twenty-seven percent are ex-servicemen. Only three percent of the prospective customers are women.

While 40 percent represent the middle class, an equal percentage fall into the professional category: doctors, lawyers, educators, businessmen, and industrialists. The remaining portion is covered by the independently wealthy who have no particular work. This tabulation indicates that approximately nine-tenths of Aeronca's plane purchasers will be the very ones who buy the average priced automobile.

"The best customer for a light plane falls into the age group of 18 to 30 years," says Aeronca. "There is no marked sign of slowing of interest in most persons until they pass 40 years. Many replies from distributors and dealers showed that both men and women in their fifties and sixties were adept at flying, and, in most cases, required only one-quarter more hours instruction than the normal six to eight hours before soloing.

"Sixty percent of the distributors feel that men learn to fly more readily than women, while 25 percent feel there is no difference."

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CLASSIFICATIONS AND EXEMPTIONS OF NON-SCHEDULED OPERATIONS

(Amendment 2 and the Proposed Amendment 3, Section 292.1, Economic Regulations)

THE Civil Aeronautics Board has issued a temporary exemption of non-scheduled operations **(Amendment 2, Section 292.1, of the Economic Regulations)**, excepting such carriers from certain provisions of Title IV of the Civil Aeronautics Act of 1938, as amended. The following is the complete text of Amendment 2, which became effective June 15, 1946:

§ 292.1 Temporary exemption of nonscheduled operations from certain provisions of Title IV of the Civil Aeronautics Act of 1938, as amended—(a) Exemption. Every air carrier which engages solely in non-scheduled operations shall be exempt from the provisions of section 401 and all other provisions of Title IV of the Civil Aeronautics Act of 1938, as amended (except as provided in paragraphs (b) and (c) of this section). Within the meaning of this section, any operation shall be deemed to be non-scheduled if the air carrier does not hold out to the public expressly or by a course of conduct that it operates one or more aircraft between any designated points regularly or with a reasonable degree of regularity upon which aircraft it accepts for transportation for compensation or hire, such members of the public as apply therefor or such express or other property as the public offers.

(b) Provisions not covered. The exemption provided by this section shall not be applicable to the provisions of section 401 (1), 407 (a), and 411 of the act: **Provided,** That no provisions of any rule, regulation or order that may be adopted by the Board requiring reports pursuant to section 407 of the act shall be deemed applicable to any non-scheduled air carrier unless such rule, regulation or order expressly provides that such provision is to be applicable to air carriers engaged solely in non-scheduled operations.

(c) Indirect air carriers. The exemption provided by this section shall extend only to non-scheduled air carriers directly engaged in the operation of aircraft in air transportation.

(d) Reports required. Every air carrier undertaking to engage solely in non-scheduled operations shall, within 30 days after the commencement of such operations (or if such air carrier is already engaging in such operations on the effective date of this section, within 30 days after the effective date of this section), file with the Secretary of the Board a statement under oath setting forth the following information:

(1) Name and address of the carrier, and location of principal operating base.

(2) If a corporation, information showing state of incorporation, and names, addresses and citizenship of the officers and directors and also of stockholders holding more than 10 per centum of the capital stock. If an individual or partnership, the names, addresses and citizenship of the owner or partners.

(3) As to both present and proposed services (i) points between which, or, if not operated between fixed points, the area or areas within which, service is operated; (ii) frequency of operations; and (iii) classes of traffic carried, whether passengers, property or both.

(4) Number and type of aircraft presently on hand and number and types of aircraft on order and approximate dates of delivery, showing type of service (passenger or property or both) in which used or to be used.

(5) A copy of the schedule of rates charged, and most recent announcement of service issued.

(6) Whether service is available to the general public or only to selected applicants under special contact.

(7) Date service inaugurated, and if service is in operation for two calendar months prior to date of report, the following data for such two-month period:

(i) Revenue plane-miles flown by types of aircraft;

(ii) Pounds and pound-miles of revenue cargo carried;

(iii) Revenue passenger and revenue passenger-miles carried;

(iv) Total revenue from all such traffic together with net operating profit or loss during such period; and

(v) The number of full-time employees at end of such period.

If any carrier has not been in operation for two calendar months prior to the date of the report, the foregoing data shall be submitted at the expiration of two calendar months after the inauguration of service.

Further changes have been set forth in a *proposed regulation* which would continue, with certain exceptions, the exemption of non-scheduled air carriers from the requirements of holding certificates of public convenience and necessity, as provided by Section 401 of the Act, and certain other economic requirements of Title IV of the Act. The full text of **Amendment 3 of Section 291.1 of the Economic Regulations** follows:

Effective (upon adoption), section 292.1 of the Economic Regulations, as amended, is hereby amended in its entirety to read as follows:

(a) Classification of Non-Scheduled Air Carriers. There is hereby established a classification of air carriers to be known as Non-scheduled Air Carriers, which classification shall include all air carriers which (1) directly engage in the operation of aircraft in air transportation and (2) engage solely in non-scheduled operations within the areas described in paragraph (e) of this section. Within the meaning of this section, any operation shall be deemed to be non-scheduled if the air carrier does not hold out to the public expressly or by a course of conduct that it operates one or more aircraft between any designated points regularly or with a reasonable degree of regularity upon which aircraft it accepts for transportation, for compensation or hire, such members of the public as apply therefor or such express or other property as the public offers: **Provided,** however, that an operation between two points shall not be deemed to be non-scheduled if the air carrier in fact operates more than ten round trips per month between such points for a period of two consecutive months, except in cases where the air carrier can demonstrate that such flights between such points for such period were conducted as a result of unusual, emergency, or non-recurring conditions, and that such flights did not result in the establishment of an operation conducted regularly or with a reasonable degree of regularity. Within the meaning of this section a "point" shall mean any airport or place where aircraft may be landed or taken-off, or an area within a 15-mile radius of such airport or place where aircraft may be landed or taken-off.

(b) Sub-Classifications. There are hereby established 2 sub-classifications of Non-Scheduled Air Carriers to be known as Class A Non-Scheduled Air Carriers and Class B Non-Scheduled Air Carriers. Class A Non-Scheduled Air Carriers shall include all Non-Scheduled Air Carriers which utilize in their non-scheduled operations any single aircraft unit having a gross weight in excess of 6000 pounds and a total weight for all units exceeding 15,000 pounds. Class B Non-Scheduled Air Carriers shall include all Non-Scheduled Air Carriers which are not Class A Non-Scheduled Air Carriers.

(c) Class A Exemptions. Class A Non-Scheduled Air Carriers shall be exempt (except as provided in paragraph (e) of this section) from the following provisions of Title IV of the Civil Aeronautics Act of 1938, as amended:

(1) Section 401 (certificate of public convenience and necessity), except the provisions of subsection 401(1);

(2) Subsection 404(a) (carrier's duty, etc.), except the provisions thereof which require air carriers to provide safe and adequate service, equipment, and facilities in connection with interstate and oversea air transportation, and which require air carriers to establish, observe, and enforce just and reasonable individual and joint rates, fares and charges relating to such air transportation;

(3) Section 405 (transportation of mail);

(4) Section 406 (rates for transportation of mail);

(5) Section 40 (consolidation, merger and acquisition of control) only insofar as said section would otherwise make it unlawful, without prior approval by the Board, (i) for a Class A Non-Scheduled Air Carrier to consolidate or merge with another Non-Scheduled Air Carrier, (ii) for a Class A Non-Scheduled Air Carrier or any person controlling such a carrier to purchase, lease, or contract to operate the properties, or any substantial part thereof, of another Non-Scheduled Air Carrier, and (iii) for a Class A Non-Scheduled Air Carrier or any person controlling such a carrier to acquire control of another Non-Scheduled Air Carrier;

(6) Section 409 (interlocking relationship) only insofar as said section would otherwise make it unlawful, without prior approval by the Board, (i) for any Class A Non-Scheduled Air Carrier to have and retain an officer or director who is an officer, director, or member, or who as a stockholder holds a controlling interest in another Non-Scheduled Air Carrier, and (ii) for any Class A Non-Scheduled Air Carrier, knowingly and willfully, to have and retain an officer or director who has a representative or nominee who represents such officer or director as an officer, director, or member, or as a stockholder holding a controlling interest in another Non-Scheduled Air Carrier: **Provided,** That if an application for approval of an interlocking relationship in existence on the effective date of this section and involving an officer, director, or member of, or stockholder holding a controlling interest in, any Class A Non-Scheduled Air Carrier is filed with the Board on or before the effective date of this section, or within not more than 5 days thereafter, such Class A Non-Scheduled Air Carrier may retain such officer, director, member, or stockholder pending final disposition of said application by the Board; and

(7) Section 412 (pooling and other agreements) only insofar as said section would otherwise require a Class A Non-Scheduled Air Carrier to file with the Board a copy or memorandum of certain contracts or agreements, or of modifications or cancellations thereof, between such Class A Non-Scheduled Air Carrier and any other Non-Scheduled Air Carrier.

(d) Class B Exemptions. Class B Non-Scheduled Air Carriers shall be exempt (except as provided in paragraph (e) of this section) from all of the provisions of Title IV of the Civil Aeronautics Act of 1938, as amended, except the provisions of sections 401(1), 407(a), and 411 of the Act: **Provided,** That no provisions of any ruler regulation or order that may be adopted by the Board requiring reports pursuant to section 407 of the Act shall be deemed applicable to any Class B Non-Scheduled Air Carrier unless such rule, regulation or order expressly provides that such provision is to be applicable to such carriers.

(e) Non-Applicability of Exemptions. The exemptions provided by this section shall only be applicable to non-scheduled operations in interstate air transportation, and to such non-scheduled operations in overseas or foreign air transportation as may be conducted between the continental United States on the one hand, and Alaska, Canada, or Mexico on the other.

(f) Reports. Every air carrier undertaking to engage solely in non-scheduled operations shall, within 30 days after the commencement of such operations, file with the Secretary of the Board a statement under oath setting forth the following information:

(1) Name and address of the carrier, and location of principal operating base.

(2) If a corporation, information showing state of incorporation, and names, addresses and citizenship of the officers and directors and also of stockholders holding more than 10 per centum of the capital stock. If an individual or partnership, the names, addresses and citizenship of the owner or partners.

(Concluded on Page 53)

PART 42—NON-SCHEDULED AIR CARRIER CERTIFICATION AND OPERATION RULES

(Effective August 1, 1946)

EXPLANATORY STATEMENT

THE Civil Aeronautics Act of 1938 requires that all air carriers have an air carrier operating certificate. Section 610 (a) (4) provides that it shall be unlawful for any person to operate as an air carrier without an air carrier operating certificate, or in violation of the terms of any such certificate.

The term "air carrier" is defined in some detail in the Act and those definitions are set forth under § 42.9 of Part 42.

It will be noted that the term "air carrier," in addition to covering the carriage of mail, covers the carriage by aircraft of persons or property as a common carrier for compensation or hire between any of the places described in the definitions. The term "common carrier," which is used in the definition of air carrier, may be unfamiliar to many of those engaged in the business of transportation by aircraft. The general meaning of the term is quite simply stated, but its application to specific situations may sometimes be more difficult. For this reason it has been considered by the courts in many cases, and much has been written regarding its application in other fields of transportation.

A common carrier is generally defined as one who, as a regular business, undertakes for hire to carry such persons as may apply, or such property as may be offered, so long as capacity is available. The fact that the operation is not scheduled and is not confined to fixed terminals or specific routes, does not prevent the operation from falling within the classification of common carrier, nor is it necessary that rates be published. Perhaps the situation most comparable to many fixed base or charter operators is found in the field of taxicab operations which have been held to be common carriers even where the passenger is entitled to the exclusive use of the vehicle. The information presented to the Civil Aeronautics Board, particularly in its investigation of non-scheduled operations which it conducted in 1945, indicated that many, if not most, of the operators often described as fixed base or charter operators fall within the definition of the term "air carrier."

For those who feel that they are not offering a service to the public, but are offering a service to a selected few, and thus doubt whether the operations come under the rules provided in this Part, it may be very helpful if they will refer their problem to the office of the Civil Aeronautics Administration Regional Administrator in their area, or write to the Civil Aeronautics Board, Washington 25, D. C., setting forth the character of their operations and requesting an opinion regarding their status. For those who are doubtful, but who wish to eliminate any possibility of operating unlawfully, it is suggested that they file their application for a non-scheduled air carrier operating certificate with the Administrator. In the event it is thereafter determined by any such applicant that he is not an air carrier, he may withdraw his application without prejudice.

The following regulations are prescribed for nonscheduled air carrier operations in interstate, overseas, or foreign air transportation:

42.0—AIR CARRIER OPERATING CERTIFICATE

42.00—Certificate required. No person shall operate as an air carrier without an air carrier operating certificate issued by the Administrator, or in violation of the terms of any such certificate.

42.01—Issuance. An air carrier operating certificate describing the nonscheduled operations authorized and prescribing such operating specifications and limitations as may be reasonably required in the interest of safety, will be issued by the Administrator to a properly qualified citizen of the United States who demonstrates that he is capable of conducting the proposed operations in accordance with the applicable requirements hereinafter specified. Application for a certificate, or application for amendment thereof, shall be made in the manner and contain the information prescribed by the Administrator.

42.02—Duration. An air carrier operating certificate will continue in effect until canceled, suspended, revoked, or a termination date is set by the Board, after which it shall be surrendered to the Administrator upon request.

42.03—Display. The air carrier operating certificate must be kept available at the carrier's principal operations office for inspection by an authorized representative of the Administrator or Board.

42.04—Inspection. An authorized representative of the Administrator or the Board shall be permitted at any time and place to make inspections or examinations to determine the operator's compliance with the Civil Air Regulations.

42.1 — AIRCRAFT REQUIREMENTS

42.10—General. Aircraft must be certificated in accordance with the airworthiness requirements of the Civil Air Regulations, and shall be of a type and class which the Administrator finds safe for the service offered.

42.11—Oxygen apparatus. Aircraft operated at an altitude exceeding 10,000 feet above sea level continuously for more than 30 minutes, or at an altitude exceeding 12,000 feet above sea level for any length of time, shall be equipped with effective oxygen apparatus and an adequate supply of oxygen available for the use of the operating crew. Such aircraft shall also be equipped with an adequate separate supply of oxygen available for the use of passengers when operated at an altitude exceeding 12,000 feet above sea level.

42.12—Emergency equipment. Aircraft to be flown long distances over uninhabited terrain must carry such additional emergency equipment as the Administrator designates for the particular operation involved. All aircraft operated over water shall be equipped with life preservers, or flotation devices readily available for each person aboard, and with a Very pistol or equivalent signal equipment, except that this requirement will not apply when such operations consist only of landings, take-offs, or flights of short duration over water where the Administrator finds that such equipment is not necessary. In addition, all aircraft operated for long distances over water shall be equipped with a sufficient number of life rafts to accommodate adequately all occupants, and such additional emergency equipment as may be required by the Administrator.

42.13—Required instruments and equipment. The following instruments and equipment for the type of operations specified shall be installed:

(a) CFR (day)

(1) airspeed indicator; (2) sensitive altimeter adjustable for change in barometric pressure; (3) magnetic direction indicator; (4) tachometer for each engine; (5) oil pressure gauge for each engine using pressure system; (6) temperature gauge for each liquid-cooled engine; (7) oil temperature gauge for each air-cooled engine; (8) manifold pressure gauge, or equivalent, for each altitude engine; (9) fuel gauge indicating the quantity of fuel in each tank; (10) position indicator, if aircraft has retractable landing gear or flaps; (11) two-way radio communications system when aircraft is operated in airport traffic zones; (12) certificated safety belts for all passengers and members of the crew; (13) fire extinguisher(s) adequate for the aircraft; (14) source of electrical supply, sufficient to operate all radio and electrical equipment; (15) one spare set of fuses or three spare fuses of each magnitude; (16) first-aid kit adequate for the crew and passengers.

(b) CFR (night) and IFR

(1) instruments and equipment specified in § 42.13 (a); (2) set of certificated forward and rear position lights; (3) at least one electric landing light; (4) certificate landing flares as follows, if the aircraft is operated beyond a three-mile radius from the center of the airport of take-off:

Maximum authorized weight of aircraft	Flares
3500 lbs. or less	5 class 3, or 3 class 2
3500 lbs. to 5000 lbs.	4 class 2
Above 5000 lbs.	2 class 1, or 3 class 2 and 1 class 1

If desired, flare equipment specified for heavier aircraft may be used.

(5) two-way radio communications system and navigational equipment appropriate to the ground facilities to be used; (6) gyroscopic rate-of-turn indicator; (7) bank indicator; (8) clock with a sweep-second hand; (9) generator of adequate capacity; (10) one set of instrument lights; (11) one gyro direction indicator; (12) one outside air temperature gauge or equivalent approved device; (14) if vacuum system is used, a vacuum gauge on the instrument panel installed in lines leading to air-driven gyroscopic instruments.

42.14—Pilot check list. A pilot's check-off list shall be furnished for and maintained in the pilot compartment of the aircraft.

42.15—Maintenance. All aircraft shall be maintained in airworthy condition and all repairs, alterations, and overhauls shall be performed in accordance with Part 18.

42.150 — Inspections. Aircraft must be given:

(a) an annual inspection within each 12-month period, and (b) a periodic inspection within each 100 hours of flight time. The annual inspection required in (a) will be accepted as one such periodic inspection.

42.2—PILOT RULES

42.20—First pilot.

(a) **Pilot in command.** The first pilot is in command of the aircraft at all times during flight and is responsible for the safety of persons and goods carried, and for the conduct and safety of members of the crew.

(b) **Preflight action.** Prior to commencing a flight the pilot shall familiarize himself with the latest weather reports issued by the United States Weather Bureau pertinent to the flight and with the information necessary for the safe operation of the aircraft en route and on the airports or other landing areas to be used, and determine that the flight can be completed with safety.

(c) **Maps and flight equipment.** The pilot shall have in his possession in the cockpit proper flight and navigational facility maps, including instrument approach procedures when instrument flight is authorized, and such other flight equipment as may be necessary to properly conduct the particular flight proposed.

(d) **Check and control test.** Immediately prior to take-off the pilot shall check the items specified in the check-off list and in addition shall test the flight controls to the full limit of travel, each engine individually, at run-up r.p.m., check the engine instruments and as many as possible of the flight instruments.

(e) **Emergency decisions.** (1) the first pilot is authorized to follow any course of action which appears necessary in emergency situations which, in the interest of safety, requires immediate decision and action. He may, in such situations, deviate from prescribed methods, procedures, or minimums to the extent required by considerations of safety, and shall, when practicable, keep the proper control station fully informed regarding the progress of the flight. When such emergency authority is exercised the pilot shall file a report of such deviation with the Adminis-

trator. (2) In an emergency requiring either the dumping of fuel or a landing at a weight in excess of the authorized landing weight, the first pilot may elect to follow whichever procedure he considers safer.

42.21—Flight time limitations. A pilot may not fly more than 10 hours in any 24 consecutive hours without an intervening period of at least eight hours during which he is relieved of all duty with the carrier.

42.22—Certification and experience.

(a) **First pilot.** Any pilot serving as first pilot must hold a valid commercial pilot rating with an aircraft type and class rating for the aircraft in which he is to serve, and for (1) **Day flight CFR** he must have had at least 50 hours of cross-country flight time as pilot or copilot; (2) **Day flight IFR,** he must possess a currently effective instrument rating and have had a total of at least 500 hours of flight time as pilot or copilot including 100 hours of cross-country flight; (3) **Night flight CFR or IFR,** he must possess a currently effective instrument rating and have had a total of at least 500 hours of flight time as pilot or copilot, including 100 hours of cross-country flight of which 25 hours shall have been during the hours of darkness.

(b) **Second pilot.** Any pilot serving as second pilot in an aircraft requiring more than one pilot must hold for:

(1) **CFR flights,** a valid commercial pilot rating with the appropriate type and class ratings; (2) **IFR flights,** in addition to (1), a currently effective instrument rating.

42.23—Recent flight experience.

(a) **General.** No pilot shall serve as first pilot in nonscheduled air transportation unless within the preceding 90 days he has made at least five take-offs and landings to a full stop in the same type and class of aircraft, two of which must have been in the same make and model. He shall not serve during the hours of darkness unless he has made at least five take-offs and landings to a full stop during the hours of darkness within the preceding 90 days.

(b) **Instrument flight.** A first pilot shall not pilot an aircraft under instrument flight rules unless within the preceding six months he has had a minimum of six hours of instrument flight time, at least two hours of which shall have been acquired by actual flight in the overcast while on an instrument flight plan filed with the appropriate traffic control center.

42.24—Logging flight time

(a) A first pilot may log the total flight time elapsing during his command of the aircraft; (b) a second pilot may log 50 per cent of the total flight time, or he may log all the flight time during which he is the sole manipulator of the controls.

42.240—Logging instrument flight time. Instrument flight time may be logged as such by the pilot actually manipulating the controls only when the aircraft is flown solely by reference to instruments either under actual or properly simulated instrument conditions.

42.3 FLIGHT OPERATION RULES

42.30—Manifest. The Administrator may require a flight manifest form for each flight if he finds it necessary for the safe operation of a type and class of aircraft or a particular type of operation. This form shall show the distribution in the aircraft of the total payload carried, and must be signed by the pilot or other authorized person charged with the duty of loading the aircraft. The pilot shall retain the original manifest until he has completed the flight and the air carrier must keep a copy available for inspection for at least 90 days at the principal operations office.

42.31—Flight record. A flight record for each flight beyond 25 miles from the airport or landing area of origin shall be kept for a period of 12 months at the principal operations office, and shall contain the following information:

(a) date and type of flight—CFR (day or night), IFR, or combination; (b) aircraft make, model, and NC number; (c) names of pilot and crew; (d) point of departure; (e) point of destination; (f) route to be followed and intended stops en route; (g) estimated time of arrival at destination; (h) amount of fuel on board (in hours of cruising consumption); (i) names and addresses of passengers carried.

Such flight record is in addition to the flight plan required by § 60.250 for IFR flight in control areas.

42.32—Instruments and equipment serviceability. Prior to starting any flight, all instruments and equipment must be in operative condition. If any instrument or equipment becomes inoperative in flight it shall be repaired or replaced at the first airport where repairs or replacements are readily available, or the flight may continue to its destination if the pilot determines that with the remaining serviceable instruments and equipment the flight can be continued with safety.

42.33—Fuel supply.

(a) **Flight under contact flight rules (CFR).** A flight shall not be started unless the aircraft carries sufficient fuel and oil, considering the wind and other weather conditions forecast, to fly to the next point of intended landing and thereafter for a period of at least 30 minutes at normal cruising consumption.

(b) **Flight under instrument flight rules (IFR).** Sufficient fuel and oil, considering the wind and other weather conditions forecast, shall be carried to: (1) Complete the flight to the point of first intended landing, and thereafter; (2) fly to the alternate airport, and thereafter; (3) fly at normal cruising consumption for a period of 45 minutes.

42.34—Weather minimums.

(a) **Take-off.** No flight may be started when the visibility is less than one mile or the ceiling is less than 200 feet at the point of take-off.

(b) **Destination.** No flight may be started unless the current weather reports and forecasts show a trend indicating that the ceiling and visibilities at the place of intended landing area, and will remain, at or above the following minimums: (e) **Contact flight operations (CFR)**—(a) ceiling, 1000 feet; (b) visibility, three miles. (2) **Instrument flight operations (IFR)**—(a) ceiling, 500 feet; (b) visibility, one mile; (c) alternate airport: if airport is served by a radio directional facility, ceiling—1000 feet, visibility— three miles; if airport is not served by a radio directional facility, visibility three miles and a ceiling of 1500 feet with broken clouds or better.

42.35—Flight altitude rules.

(a) **Day (CFR) operation.** Except during take-off and landing, aircraft shall not be flown less than 500 feet from any obstacle in flight, except in such cases as may be specifically authorized by the Administrator.

(b) **Night (CFR) or instrument (IFR) operation.** Except during take-off and landing, no aircraft shall be flown at an altitude of less than 1000 feet above the highest obstacle located within five miles of the aircraft in flight.

42.36—Icing conditions. Aircraft must not be flown into known or probable heavy icing conditions and may be flown into light or medium icing conditions only if the aircraft is equipped with an approved means for deicing the wings, propellers and such other parts of the aircraft as are essential to safety.

42.37—Instrument approach and landing rules. Unless otherwise instructed by a control tower or center, the standard instrument approach procedures authorized for the airport shall be used.

42.4—MISCELLANEOUS RULES

42.40—Pilots at controls. In the case of aircraft requiring two or more pilots, two pilots must remain at the controls at all times while landing and taking off, and while the aircraft is en route except when the absence of one is necessary in connection with his regular duties or when he is replaced by a person authorized under the provisions of § 42.41.

42.41—Admission to pilot compartment. In aircraft having a separate pilot compartment, no person other than a crew member, a check pilot, an inspector of the Administrator or a representative of the Board in pursuance of official duty, or a person whose admission is approved by the first pilot, may be admitted to the pilot compartment. In the latter case, the first pilot must remain at the controls.

42.42—Manual. When the Administrator finds that the operation and type of aircraft used so requires, the air carrier shall prepare and maintain a manual for the use and guidance of operations and maintenance personnel which contains full information necessary to guide flight and ground personnel in the conduct of flight operations, and to inform such personnel regarding their duties and responsibilities. The manual must be in a form and content approved by the Administrator, and be furnished to all persons designated by the Administrator or Board. All copies must be kept up-to-date.

42.43—Records. Each carrier shall keep at the operating base the following current records with respect to all aircraft, aircraft engines, propellers, and where practicable, appliances used in air transportation: (a) total time and service; (b) time since last overhaul; (c) time since last inspection; (d) mechanical failures.

42.44—Emergency flights. In the case of emergencies necessitating the transportation of persons or medical supplies for the protection of life or property, the rules contained herein regarding type of aircraft, equipment, and weather minimums to be observed will not be applicable: **Provided,** That within 48 hours after any such flight returns to its base the air carrier shall file a report with the Administrator setting forth the conditions under which the flight was made, the necessity therefor, and giving the names and addresses of the crew and passengers.

42.45—Exemptions. An air carrier engaged in nonscheduled air carrier operations on or before August 1, 1946, may continue to engage in such nonscheduled air carrier operations without an air carrier operating certificate until such time as the Administrator shall pass upon the application for such certificate if prior to August 1, 1946, he has filed with the Administrator an application for such certificate.

42.46—Exceptions. Whenever upon investigation the Administrator finds that the general standards of safety required for air carrier operations require or permit a deviation from any specific requirement of this Part for a particular operation or a class of operations for which an application for an air carrier operating certificate has been made, he may issue an air carrier operating certificate with appropriate changes. The Administrator shall promptly notify the Board of any deviations included in the air carrier operating certificate and the reasons therefor.

42.9—DEFINITIONS

Air carrier means any citizen of the United States who undertakes, whether directly or indirectly, or by a lease, or by any other arrangement the carriage by aircraft of persons or property as a common carrier for compensation or hire or the carriage of mail by aircraft, in commerce whether such commerce moves wholly by aircraft or partly by aircraft and partly by other forms of transportation, between any of the following places: a place in any State of the United States, or the District of Columbia, and a place in any other State of the United States, or the District of Columbia; places in the same State of the United States through the air space over any place outside thereof; places in the same Territory or possession (except the Philippine Islands) of the United States, or the District of Columbia; a place in any State of the United States, or the District of Columbia, and any place in a Territory or possession of the United States; a place in a Territory or possession of the United States, and a place in any other Territory or possession of the United States; a place in the United States and any place outside thereof.

Classifications, Exemptions Of Nonscheduled Operations

(*Continued from Page* 51)

(3) As to both present and proposed services (i) points between which, or, if not operated between fixed points, the area or areas within which, service is operated; (ii) frequency of operations; and (iii) classes of traffic carried, whether passengers, property or both.

(4) Number and type of aircraft presently on hand and number and types of aircraft on order and approximate dates of delivery, showing type of service (passenger or property or both) in which used or to be used.

(5) A copy of the schedule of rates charged, and most recent announcement of service issued.

(6) Whether service is available to the general public or only to selected applicants under special contract.

(7) Date service inaugurated, and if service is in operation for two calendar months prior to date of report, the following data for such two-month period:

(i) Revenue plane-miles flown by types of aircraft:

(ii) Pounds and pound-miles of revenue cargo carried;

(iii) Revenue passengers and revenue passenger-miles carried;

(iv) Total revenue from all such traffic together with net operating profit or loss during such period; and

(v) The number of full-time employees at end of such period. If any carrier has not been in operation for two calendar months prior to the date of the report, the foregoing data shall be submitted at the expiration of two calendar months after the inauguration of service. Class B Non-Scheduled Air Carriers need not file the data required by this paragraph (7).

AIR TRANSPORTATION Congratulates

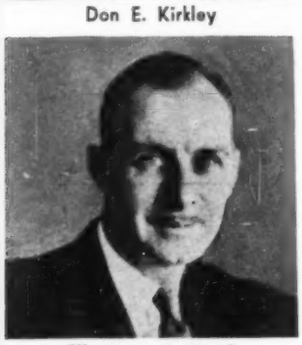
Philip M. Willcox

James P. Cunningham

W. R. Thigpen

Alfred N. Wiley

Don E. Kirkley



Ellis Emmons Reed

★ EXECUTIVE ★

EVERETT RICHARD COOK, elected to a directorship in Eastern Air Lines. A World War I ace, he was decorated with the Distinguished Service Cross, Silver Star, and Croix de Guerre with palm. He served in the recent war as a colonel and was awarded the Legion of Merit. The new director heads Cook and Company, cotton merchants, of Memphis.

HARRY D. MILLER and **FREDERICK D. GEARHART,** new directors of Atlantic Central Airlines. Miller is a partner in the stock exchange firm of Nugent and Igoe, and director of the Harvill Corporation; Gearhart is a member of the investment banking firm of Kobbe, Gearhart and Company, and a director of Hillins, Inc., and the Globe Aircraft Company.

SYDNEY B. SMITH, appointed assistant to the chairman of the board of TWA. He was formerly associated with the State Department and the Lockheed Aircraft Corporation. Smith served as a lieutenant colonel in the war.

PHILIP M. WILLCOX, elected vice president of the TACA Airways System. He entered commercial aviation 16 years ago, serving in various executive posts. Last year he resigned his position of vice president of United Air Lines to take over a similar post with the Fred Olsen Line Agency.

WESLEY R. BUNKER, recently discharged after serving four years as a major in the ATC, named vice president of the American Air Express Corporation. Before entering the service, he was district traffic manager for TWA for 15 years.

M. T. STALLTER, appointed by American Airlines as assistant vice president for state affairs. He has been with the airline and its predecessor company since 1929. Stallter served as a colonel in the ATC.

JAMES P. CUNNINGHAM, named by the Luscombe Airplane Corporation as vice president in charge of production. He has been with the company since 1942. Cunningham has a background of seven years' experience in teaching industrial arts.

W. R. THIGPEN, former district traffic manager of United Air Lines, elevated to the post of special assistant to the president of the airline. A Georgian, Thigpen has been with United for nearly 13 years.

ALFRED N. WILEY, appointed assistant to the president of Air Express International Agency, Inc. He has been connected with the Chase National Bank of New York; Eastern Air Lines; Stevenson, Jordan and Harrison; and the Department of State.

BENJAMIN M. WATSON, named assistant to the executive vice president of TACA. He has been engaged in the transportation field for two-and-a-half decades. Watson is a great-grandson of Jose Figueroa, the first Mexican governor of California.

ALBERT H. HINKLE, who has joined Northwest Airlines as assistant to the executive vice president. He will give his main attention to expense control.

L. H. PETERS, appointed assistant to Regional Vice President C. R. Speers of American Airlines. Peters has been affiliated with AA for 11 years, interrupted by 41 months of service with the ATC in which he held the rank of major.

G. T. BOVEE, elected controller of Consolidated Vultee. He entered the aviation field nine years ago.

★ ADVERTISING ★ PUBLIC RELATIONS

DON J. KIRKLEY, veteran newswriter and author on interamerican affairs, named manager of the Press Relations Division of TACA. A former member of the Associated Press staff in Washington, he will make his headquarters in the nation's capital.

ELLIS EMMONS REED, who recently held the position of manager of Pan American Airways' News Bureau, now with Air France as its public relations manager in North America. Reed is a former advertising writer, reporter, dramatic critic, editor, author, and playwright.

ROBERT H. AMES, appointed assistant to the director of advertising and public relations of Pennsylvania Central Airlines. Before the war he was vice president of a Cincinnati advertising agency. He recently returned from wartime Navy service.

GORDON L. GILMORE, who held down the job of executive sports editor of *The St. Paul Dispatch* and *The Pioneer Press,* named by TWA as director of its New York News Bureau. He spent 16 years with the Ridder publications in St. Paul and has worked on other newspapers.

WILLIAM G. PRESTON, New York City public relations representative for American Airlines, appointed to the position of assistant regional director of public relations for the company. He is a former Boston newspaperman.

HUGH MORRISON, former public relations director for TACA, now with John Nasht and Associates. He has been connected with the Beaverbrook papers in London, *The Toronto Star, Star Weekly,* and Canadian Broadcasting Corporation.

★ TRAFFIC ★

TROND A. SUNDEM, appointed manager of Eastern Air Lines' Agency Department. He joined EAL in 1940, and recently returned from overseas where he served in the ATC as a lieutenant colonel. His last airline job was as Southern Division agency manager.

HUBERT C. WATSON, who has joined TWA as senior staff assistant in

Trond A. Sundem

M. P. Bickley

Nicholas Craig

Charles W. Hamilton

Oliver J. Studeman

Joseph A. Young

connection with traffic, advertising, and organizational functions of the International Division. A former mineral exporter, he joined Panair do Brasil and later was transferred to Pan American Airways' Atlantic Division. After eight years with PAA, he became associated with the industrial designer, Walter Dorwin Teague.

ARTHUR F. KELLY, promoted to the position of assistant to the general traffic manager of Western Air Lines. He joined WAL 10 years ago as city traffic manager in Hollywood. During the war he served as deputy chief of staff, European Division, ATC, with the rank of lieutenant colonel.

ROBERT V. BLANK, former MCA executive and war veteran, named by TACA as assistant to George T. Cussen, regional traffic manager. He is a native of Peoria, Illinois.

JOHN J. ROBINSON, appointed district traffic manager for Trans-Canada Air Lines in New York. He had held a similar post at Vancouver, British Columbia, since 1943.

WARREN R. LeROY, formerly traffic representative for Northwest Airlines at Chicago, elevated to the position of district traffic manager at Great Falls, Montana. He has been with NWA since 1939.

MEDAL WINNERS—Two air cargo line executives, both with excellent war records, shown receiving medals in recognition of outstanding service. Shown in these pictures are Brigadier General Lawrence J. Carr, chairman of the board of Trans Caribbean Air Cargo Lines and president of the Institute of Air Transportation, wearing the Distinguished Service Medal pinned on by Lieutenant General G. E. Stratemeyer; and H. Mat Adams, executive vice president of the Air Cargo Transport Association, receiving the Medal of Freedom from Colonel George S. Beurket. General Carr was commander of the Seventh Bomber Command on Okinawa. Adams, a civilian, was chief of operations, Psychological Warfare Division, and later of the Allied Information Service Group.

★ CARGO ★

M. P. BICKLEY, who succeeds Paul E. Burbank as manager of cargo sales for United Air Lines. He was district traffic and sales manager for UAL at New York for five years prior to entering service with the ATC six years ago. Bickley served as a lieutenant colonel attached to General MacArthur's Manila headquarters.

★ SALES ★

NICHOLAS CRAIG, appointed sales manager of Panagra with headquarters in New York. He has had wide experience in the travel and transportation industry. Craig has operated his own travel bureau, and has also held important posts with the American Express Company, Braniff, and PAA.

CHARLES W. HAMILTON, who now heads the Sales Development Department of the Douglas Aircraft Company. He has been with the company for 10 years, taking care of various important assignments.

ROY BACKMAN, district traffic manager in San Francisco, moved up to the job of director of general sales for Western Air Lines. He succeeds Arthur F. Kelly.

THOMAS I. CASE, appointed assistant domestic sales manager for the Piper Aircraft Corporation. Case has been with Piper since 1937.

DEL BOGART, named assistant to the district sales manager of American Airlines in New York. He has been an employe of the company since 1939.

★ OPERATIONS ★

CAPTAIN OLIVER J. STUDEMAN, appointed by PAA as operations manager of the Latin American Division. A veteran of 10 years of flying in all parts of the world, he formerly served as operations manager of the Pacific-Alaska Division.

JOSEPH A. YOUNG, promoted to the newly created position of operations manager for Chicago and Southern Air Lines. An 11-year veteran with C & S, Young has served the airline in numerous capacities. His aviation career began 21 years ago.

COLONEL H. J. REID, wartime deputy chief of the AAF's Office of Flying Safety, named flight operations manager for PCA.

★ MISCELLANEOUS ★

WALKER PERCY and **CAPTAIN ALVIN O. PREIL, USNR,** appointed to the respective Civil Aeronautics Administration posts of coordinator of CAA activities relating to PICAO, and assistant administrator for business management.

DR. KENNETH E. DOWD, chief medical officer of the Canadian National Railways and Trans-Canada Air Lines, elected president of the Airlines Medical Directors Association.

Norseman Air Transport Files for Non-Scheduled New York-Montreal Flights

Similar to the one filed with the Civil Aeronautics Board in Washington, D. C., Norseman Air Transport, Inc., has filed an application with the Canadian Transportation Board for non-scheduled cargo and passenger flights between New York and Canada. The announcement was made by Robert G. Averill, president-treasurer of the airline.

It is the fifth application to be filed by Norseman with the American and Canadian boards in the past three years. Decision on the first, for contract service in New England, still is pending. Hearings were recently completed on the second application, for service in the Middle Atlantic States. The third was the American half of the Canadian service, and the fourth for trans-continental cargo operations, with terminals at New York, Philadelphia, Baltimore, Washington, Chicago, and Memphis.

Under Norseman's operational plans for the Canadian service, the flights would leave New York for Montreal via Bridgeport, Connecticut; Albany, New York; Rutland, Vermont; and Burlington, Vermont.

Commerce Dept. Statistics Include Air for First Time

United States Export Transport Statistics—1943 (Summary Tables), which was released last month by the United States Department of Commerce, included air transportation statistics for the first time. The tables represented the advance release of final summary data on the method of transportation by which United States exports of domestic and foreign merchandise were shipped out of the country during 1943.

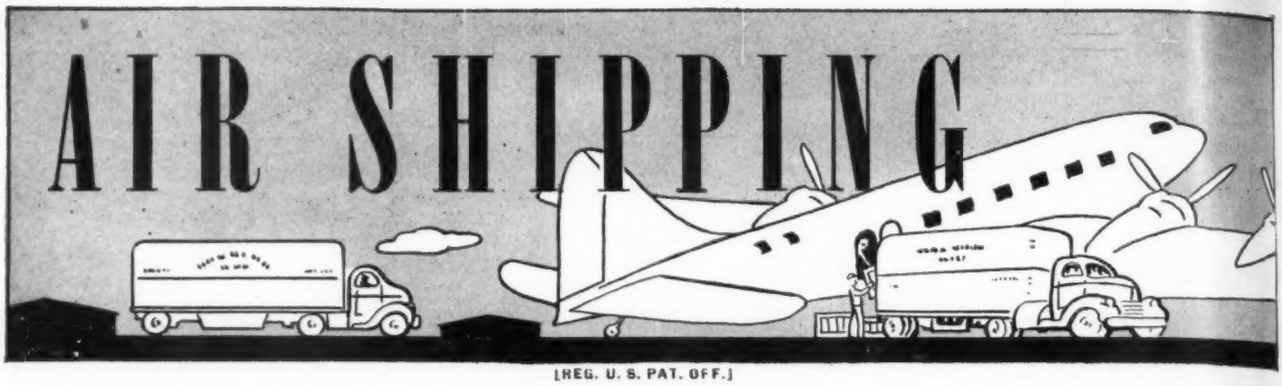
439th Troop Carrier Group

(*Continued from Page 39*)

bers of the Group who qualified in the required time and area for the following campaigns: Normandy, Northern France, Southern France, Rome-Arne, Rhineland, Ardennes, and Central Europe. A list of personal awards given to members of the Group while overseas included one Silver Star, 27 awards of the Distinguished Flying Cross, two Oak Leaf Clusters to the DFC, 956 Air Medals, 1,145 Oak Leaf Clusters to the Air Medal, six Purple Hearts, two Soldier's Medals, three Certificates of Merit, and one Distinguished Unit Citation to the Group.

In its peacetime role the 439th Group is a member of the Third Air Force of the Tactical Air Command.

AIR SHIPPING



[REG. U. S. PAT. OFF.]

International Express and Mail Tables

Air express rates quoted are from U. S. International airport of departure (U. S. Gateway) and are based on the prevailing tariffs, airport to airport (see note); also see note for Airfreight rates. Shippers are warned, however, that these are subject to change.

GATEWAY SYMBOLS

Bb—Bangor, Me.
Bro—Brownsville, Tex.
Bw—Boston, Mass.
Cg—Chicago
Cub—Cut Bank, Mont.
Dl—Dallas
Ep—El Paso
Fv—Fort Worth
Gf—Grand Forks, N. D.
Jg—Burlington, Vt.
Lgs—Los Angeles
Lo—Laredo
Mia—Miami
No—New Orleans
Nyk—New York
Ph—Philadelphia
Sa—San Antonio
Sf—San Francisco
Sq—San Diego
Ste—Seattle
Wa—Washington, D.C.

International Air Express is subject to two charges: one a charge per pound weight or measurement at carrier's option (200 cu. in. to the pound of weight), the other a charge per $100 of valuation. The two must be added on any shipment to determine the cost. Neither includes insurance, which may be purchased by the shipper from the carrier or otherwise.

Priorities: The air carriers warn all shippers that express traffic, both U. S. Government and commercial, is so heavy that no guarantee can be given that any shipment will depart on any particular plane unless it enjoys U. S. priority. Otherwise it will depart, in relation to other shipments, in the order received at the international airport used, subject to wartime limitations. Pickup service without extra charge is available for all international air express, except shipments routed through American Overseas Airlines. For shipments forwarded via Pan American Airways, a "Shipper's Letter of Instructions" is prepared and accompanies shipment to local REA office, where the PAA Airwaybill is prepared. (On cargoes to be shipped via American Overseas Airlines, Inc., shippers should contact "Shipper's Service," 100 East 42nd Street, New York 17, N. Y. LExington 2-5700.)

International air carriers whose schedules are rates are included here are indicated by the letter following the symbol for the airport.

AIRLINE SYMBOLS

A—American Airlines
AO—American Overseas Airlines
B—Braniff Airways
C—Colonial Air Lines
EA—Expreso Aereo Inter-Americano
K—KLM-Royal Dutch Airlines
NE—Northeast Airlines
NW—Northwest Airlines
P—Pan American Airways System and affiliates
T—Trans-Canada Air Lines
TA—TACA
TW—Transcontinental & Western Air
U—United Air Lines
W—Western Air Lines

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	RATES (See Note) Per $100 Value	Depart	Mail per ½ Oz.
Bogota, Colombia	Mia P	.77	.32	Twice Dly	
"	No P	1.08	.43	Dly	
"	Bro P	1.11	.43	Dly	
"	Lgs P	1.38	.43	Dly	
Bonaire, N. W. I.	— P	via Curac		ao, N.W.I.	
"	Mia K	.68	.32	M,T,Th,F,Sa	
Bonanza, Nicaragua	MiaTA	.61	.20	Frequently	
Bucaramanga, Colombia	Mia P	.75	.32	Su,W,F	
"	No P	1.12	.43	Su,M,Th,F	
"	Bro P	1.20	.43	Su,M,Th,F	
"	Lgs P	1.48	.43	Su,W,Th,Sa	
Buenaventure, Col.	Mia P	.84	.32	Su	
"	No P	1.19	.43	F	
"	Bro P	1.20	.43	F	
"	Lgs P	1.52	.43	Th	
Buenos Aires, Argentina	Mia P	1.56	.43	Twice Dly	
"	No P	1.62	.43	Dly	
"	Bro P	1.65	.43	Dly	
"	Lgs P	1.95	.43	Dly	
Caibarien, Colombia	Mia P	.22	.15	Dly	
Cali, Colombia	Mia P	.71	.32	Dly	
"	No P	.94	.32	Dly	
"	Bro P	.97	.32	Dly	
"	Lgs P	1.24	.43	Dly	
Camaguey, Cuba	Mia P	.18	.15	Seven Dly	
"	Mia K	.17	.15	M,Th	
Campeche, Mexico	Mia P	.39	.17	Dly	
"	No P	.35	.17	Dly	
"	Bro P	.49	.32	Dly	
"	Lgs P	.89	.32	Dly	
Campo Grande, Brazil	Mia P	1.48	.43	T,F,Sa	
"	No P	1.61	.43	Su,W,Th	
"	Bro P	1.60	.43	Su,W,Th	
"	Lgs P	2.15	.43	Su,W,Th	
Canavieiras, Brazil	Mia P	1.33	.43	Th,Sa	
"	No P	1.56	.43	T,Th	
"	Bro P	1.69	.43	T,Th	
"	Lgs P	1.99	.43	T,Th	
Caracas, Venezuela (*See La Guaira*)					
Caravellas, Brazil	Mia P	1.36	.43	T,W,F,Sa,Su	
"	No P	1.59	.43	S,M,W,Th,F	
"	Bro P	1.73	.43	Su,M,W,Th,F	
"	Lgs P	2.03	.43	Su,T,W,Th, Sa	
Catagena, Colombia	Mia P	.58	.32	Dly	
"	No P	.95	.32	Dly	
"	Bro P	1.05	.32	Dly	
"	Lgs P	1.32	.43	Dly	
Cartage, Colombia	Mia P	.80	.32	Dly	
"	No P	1.03	.32	Dly	
"	Bro P	1.06	.32	Dly	
"	Lgs P	1.33	.43	Dly	
Cat Cay, Bahamas	Mia P	.10	.15	M,Th,Sa	
Cayenne, Fr. Guiana	Mia P	.97	.32	Dly	
"	No P	1.32	.43	Dly	
"	Bro P	1.26	.43	Dly	
"	Lgs P	1.51	.43	Dly	
Cayo Mambi, Cuba	Mia P	.26	.17	Dly	
Chetumal, Mexico	Mia P	.45	.17	M,W,F	
"	No P	.43	.17	M,W,F	
"	Bro P	.55	.32	M,W,F	
"	Lgs P	.93	.32	Su,T,Th	
Chiclayo, Peru	Mia P	.94	.32	Dly	
"	No P	1.14	.43	Dly	
"	Bro P	1.17	.43	Dly	
"	Lgs P	1.40	.43	Dly	
Cienfuegos, Cuba	Mia P	.20	.15	Dly	
Cienaga, Colombia	Mia P	.58	.32	Dly	
"	No P	.95	.32	Dly	
"	Bro P	1.05	.32	Dly	
"	Lgs P	1.32	.43	Dly	
C. del Carmen, Mexico	Mia P	.43	.17	Dly	
"	No P	.41	.17	Dly	
"	Bro P	.44	.17	Dly	
"	Lgs P	.85	.32	Dly	
Ciudad Trujillo, D. R.	Mia P	.43	.17	Five Dly	
"	Mia TA	.50	.20	Frequently	
"	Mia K	.73	.32	T	
Ciudad Victoria Tampe.	Dl B	.30	.17	Dly	
"	Fv B	.30	.17	Dly	
"	Lo B	.16	.15	Dly	
"	Sa B	.23	.17	Dly	
Cochabamba, Bolivia	Mia P	1.26	.43	M,W,Sa	
"	No P	1.35	.43	Su,T,F	
"	Bro P	1.35	.43	Su,T,F	
"	Lgs P	1.56	.43	M,Th,Sa	
Concepcion, Bolivia	Mia P	1.31	.43	Sa	
"	No P	1.45	.43	F	

NOTE: Per pound rate shown in this column is based on the average package weighing 25 lbs., i.e., 1 lb. package from New York to Ontario would cost $1 or 25 lbs. $4. Average cost per lb., 16¢. . . . Valuation rates are only due if consignments are shipped with declared value. . . . **American Airlines and American Overseas Airlines** offer lower rates per pound on shipments weighing 50 pounds and over. The valuation charge shown for AOA is only practicable on shipments with a valuation of $7.71 per pound. For further information, contact AA or AOA.

* British Overseas Airways Corp. carries from Foynes, Ireland, to destinations in England, Scotland, and Wales.

† Canadian air express is carried on the same basis as air express within the U. S.: $50 declared value free; excess charged at 10 cents per $100 or fraction thereof.

LATIN AMERICAN ROUTES

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	RATES (See Note) Per $100 Value	Depart	Mail per ½ Oz.
Amalfi, Colombia	Mia P	.77	.32	Su,M,T,W,F	.15
"	Bro P	1.15	.43	Su,T,F	.15
"	No P	1.11	.43	Su,T,F	.15
"	Lgs P	1.44	.43	Su,M,Th	.15
Andagoya, Colombia	Mia P	.81	.32	Su	.15
"	No P	1.12	.43	F	.15
"	Bro P	1.15	.43	F	.15
"	Lgs P	1.42	.43	Th	.15
Antigua, B.W.I.	Mia P	.64	.32	Thrice Dly	.10
"	No P	.96	.32	Dly	.10
"	Bro P	1.10	.43	Dly	.10
"	Lgs P	1.35	.43	Dly	.10
Antilla, Cuba	Mia P	.24	.15	Dly	.08
Antofagasta, Chile	Mia P	1.26	.43	Dly except T	.20
"	No P	1.34	.43	Dly except M	.20
"	Bro P	1.34	.43	Dly except M	.20
"	Lgs P	1.56	.43	Dly except S	.20
Aracaju, Brazil	Mia P	1.26	.43	Th,Sa	.20
"	No P	1.53	.43	W,F	.20
"	Bro P	1.60	.43	W,F	.20
"	Lgs P	1.90	.43	T,Th	.20
Arequipa, Peru	Mia P	1.16	.43	Dly	.15
"	No P	1.26	.43	Dly	.15
"	Bro P	1.26	.43	Dly	.15
"	Lgs P	1.51	.43	Dly	.15
Arica, Chile	Mia P	1.26	.43	Su,M,W,Th, Sa	.20
"	No P	1.26	.43	Dly except M	.20
"	Bro P	1.26	.43	Dly except M	.20
"	Lgs P	1.53	.43	Dly except Su	.20
Aruba, N. W. I.	— P	via Curac		ao, N.W.I.	
"	Mia K	.61	.32	Dly	.10
Asuncion, Paraguay	Mia P	1.53	.43	Su,T,F	.20
"	No P	1.75	.43	Su,W,F	.20
"	Bro P	1.86	.43	Su,W,F	.20
"	Lgs P	2.19	.43	T,Th,Sa	.20
Ayapel, Colombia	Mia P	.67	.32	T,Th	.15
"	No P	1.04	.32	M,F	.15
"	Bro P	1.14	.43	M,F	.15
"	Lgs P	1.41	.43	Su,Th	.15
Bahia, Brazil (*See Sao Salvador*)					
Balboa, Canal Zone	Mia P	.55	.32	Dly	.10
"	MiaTA	.76	.20	Frequently	.10
"	No P	.82	.32	Dly	.10
"	Bro P	.86	.32	Twice Dly	.10
"	Lgs P	1.15	.43	Dly	.10
Baracoa, Cuba	Mia P	.28	.17	Dly	.08
Barcelona, Venezuela	Mia P	.71	.32	Dly	.15
"	No P	1.02	.32	Dly	.15
"	Bro P	1.12	.43	Dly	.15
"	Lgs P	1.36	.43	Dly	.15
Barranca, Bermeja, Col.	Mia P	.75	.32	Su,T,W,F,Sa	.15
"	No P	1.12	.43	Su,M,Th,F	.15
"	Bro P	1.20	.43	Su,M,Th,F	.15
"	Lgs P	1.49	.43	Su,W,Th,Sa	.15
Barranquilla, Colombia	Mia K	.72	.32	Tu,Sa	.15
"	Mia P	.49	.32	Twice Dly	.15
"	Bro P	.96	.32	Dly	.15
"	No P	.86	.32	Dly	.15
"	Lgs P	1.23	.43	Dly	.15
Baura, Brazil	Mia P	1.46	.43	Tu,F,Sa	.20
"	No P	1.60	.43	Su,W,Th	.20
"	Bro P	1.71	.43	Su,W,Th	.20
"	Lgs P	2.05	.43	Tu,W,Sa	.20
Bayamo, Cuba	Mia P	.24	.15	Dly	.08
Belem, Brazil	Mia P	1.09	.43	Twice Dly	.20
"	MiaTA	1.09	.43	Frequently	.20
"	No P	1.33	.43	Dly	.20
"	Bro P	1.34	.43	Dly	.20
"	Lgs P	1.56	.43	Dly	.20
Belize, Br. Hond.	MiaTA	.50	.20	Frequently	.10
Bello-Horizonte, Brazil	Mia P	1.44	.43	Dly	.20
"	No P	1.56	.43	Dly	.20
"	Bro P	1.69	.43	Dly	.20
"	Lgs P	1.99	.43	Dly	.20
Bluefield, Nicaragua	MiaTA	.60	.20	Frequently	.10

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Concepcion (Cont.)	Bro P	1.45	.43	F	.20
"	Lgs P	1.62	.43	F	.20
Condoto, Colombia	Mia P	.81	.32	Su	.15
"	No P	1.12	.43	F	.15
"	Bro P	1.15	.43	F	.15
"	Lgs P	1.42	.43	Th	.15
Cordoba, Argentina	Mia P	1.46	.43	Dly	.20
"	No P	1.55	.43	Dly	.20
"	Bro P	1.56	.43	Dly	.20
"	Lgs P	1.85	.43	Dly	.20
Coro, Venezuela	Mia P	.62	.32	Dly	.15
"	No P	.96	.32	Dly	.15
"	Bro P	1.04	.32	Dly	.15
"	Lgs P	1.30	.43	Dly	.15
Coronal, Colombia	Mia P	.65	.32	Dly	.15
"	No P	1.02	.32	Dly	.15
"	Bro P	1.12	.43	Dly	.15
"	Lgs P	1.39	.43	Dly	.15
Corumba, Brazil	Mia P	1.36	.43	Su,W,Sa	.20
"	No P	1.48	.43	M, Th	.20
"	Bro P	1.50	.43	M,Th	.20
"	Lgs P	1.69	.43	Su,W	.20
Cristobal, Canal Zone	Mia P	.57	.32	Dly	.10
"	No P	.83	.32	Dly	.10
"	Bro P	.86	.32	Dly	.10
"	Lgs P	1.15	.43	Dly	.10
Cucuta, Colombia	Mia P	.75	.32	Dly	.15
"	No P	1.12	.43	Dly	.15
"	Bro P	1.20	.43	Dly	.15
"	Lgs P	1.49	.43	Dly	.15
Cuenca, Ecuador	Mia P	.86	.32	Su,W,F	.15
"	No P	1.06	.32	T,Th,Sa	.15
"	Bro P	1.10	.43	T,Th,Sa	.15
"	Lgs P	1.35	.43	M,W,F	.15
Curacao, N.W.I.	Mia P	.59	.32	Dly	.10
"	No P	.93	.32	Dly	.10
"	Bro P	1.07	.43	Dly	.10
"	Lgs P	1.33	.43	Dly	.10
"	Mia K	.66	.32	Dly	.10
Curityba, Brazil	Mia P	1.46	.43	Su,W,Th	.20
"	No P	1.60	.43	M,W,F	.20
"	Bro P	1.75	.43	M,W,F	.20
"	Lgs P	2.06	.43	Th,Su,T	.20
David, Panama	Mia P	.62	.32	Dly	.10
"	No P	.76	.32	Dly	.10
"	Bro P	.81	.32	Dly	.10
"	Lgs P	1.10	.43	Dly	.10
El Banco, Colombia	Mia P	.67	.32	Dly	.15
"	No P	1.04	.32	Su,M,F	.15
"	Bro P	1.14	.43	Su,M,F	.15
"	Lgs P	1.41	.43	Su,Th,Sa	.15
Esmeraldas, Ecuador	Mia P	.93	.32	W,Sa	.15
"	No P	1.11	.43	T,F	.15
"	Bro P	1.11	.43	T,F	.15
"	Lgs P	1.38	.43	M,Th	.15
Florianopolis, Brazil	Mia P	1.48	.43	Su,W	.20
"	No P	1.64	.43	F,M	.20
"	Bro P	1.79	.43	M,F	.20
"	Lgs P	2.08	.43	S,Th	..
Fortaleza, Brazil (Ceara)	Mia P	1.23	.43	Dly	.20
"	No P	1.44	.43	Dly	.20
"	Bro P	1.51	.43	Dly	.20
"	Lgs P	1.72	.43	Dly	.20
Gamarra, Colombia	Mia P	.75	.32	M,W,Th	.15
"	No P	1.12	.43	Su,M,F	.15
"	Bro P	1.20	.43	Su,M,F	.15
"	Lgs P	1.49	.43	Su,Th,Sa	.15
Georgetown, British Guiana	Mia P	.85	.32	Dly	.15
"	No P	1.12	.43	Dly	.15
"	Bro P	1.24	.43	Dly	.15
"	Lgs P	1.46	.43	Dly	.15
Golfito, Costa Rica	Mia TA	.66	.20	Frequently	.10
Guadalajara, Mexico	Bro P	.37	.17	Dly	.08
"	Lgs P	.59	.27	Dly	.08
Guantanamo, Cuba	Mia P	.26	.17	Twice Dly	.08
Guapi, Colombia	Mia P	.87	.32	Su	.15
"	No P	1.10	.43	F	.15
"	Bro P	1.13	.43	F	.15
"	Lgs P	1.40	.43	Th	.15
Guatemala City, Gua.	Mia P	.53	.32	Dly	.10
"	No P	.49	.32	Twice Dly	.10
"	Bro P	.53	.32	Twice Dly	.10
"	Lgs P	.90	.43	Dly	.10
Guayaquil, Ecuador	Mia P	.85	.32	Dly	.15
"	No P	1.05	.32	Dly	.15
"	Bro P	1.07	.43	Dly	.15
"	Lgs P	1.33	.43	Dly	.15
Havana, Cuba	Mia P	.12	.15	Several Dly	.08
"	Mia EA	.12	.15	Twice Dly	.08
"	Mia TA	.12	.15	Frequently	.08
Hermosillo, Mexico	Lgs P	.24	.15	Dly	.08
Holguin, Cuba	Mia P	.22	.15	Dly	.08
Honda, Colombia	Mia P	.80	.32	Dly	.15
"	No P	1.13	.43	Dly	.15
"	Bro P	1.17	.43	Dly	.15
"	Lgs P	1.46	.43	Dly	.15
Iguassu Falls, Brazil	Mia P	1.51	.43	Su,T	.20
"	No P	1.69	.43	Su,F	.20
"	Bro P	1.84	.43	Su,F	.20
"	Lgs P	2.14	.43	Th,Sa	.20
Ipiales, Colombia	Mia P	.89	.32	Dly	.15
"	No P	1.12	.43	Dly	.15
"	Bro P	1.15	.43	Dly	.15
"	Lgs P	1.42	.43	Dly	.15
Istmina, Colombia	Mia P	.81	.32	Su	.15
"	No P	1.12	.43	F	.15
"	Bro P	1.15	.43	F	.15
"	Lgs P	1.42	.43	Th	.15
Ixtepec, Mexico	Mia P	.68	.32	M,T,W,Th, F,Su	.08
Ixtepec (Cont.)	No P	.64	.32	Su,T,W,Th, Sa,M	.08
"	Bro P	.36	.17	Su,T,W,Th, F,M	.08
"	Lgs P	.81	.32	Su,T,W,Th, Sa,M	.08
Joao Passoa (Cabadello)	Mia P	1.25	.43	Th	.20
"	No P	1.49	.43	T	.20
"	Bro P	1.55	.43	T	.20
"	Lgs P	1.82	.43	M	.20
Kingston, Jamaica	Mia P	.28	.17	Dly	.10
"	Mia K	.32	.17	Su,T,W,F,Sa	.15
La Ceiba, Honduras	Mia TA	.53	.20	Frequently	.10
La Guaira, Venezuela	Mia P	.66	.32	Dly	.15
"	Mia K	.73	.32	Dly	.10
"	No P	.98	.32	Dly	.15
"	Bro P	1.09	.43	Dly	.15
"	Lgs P	1.30	.43	Dly	.15
La Gloria, Colombia	Mia P	.72	.32	Su,T,W	.15
"	No P	1.09	.43	Su,M,F	.15
"	Bro P	1.19	.43	Su,M,F	.15
"	Lgs P	1.46	.43	Su,Th,Sa	.15
La Paz, Bolivia	Mia P	1.22	.43	M,T,W,F,Sa	.20
"	No P	1.30	.43	M,T,Th,F,Sa	.20
"	Bro P	1.30	.43	M,T,Th,F,Sa	.20
"	Lgs P	1.54	.43	Su,M,W,Th,F	.20
Libertad, Nicaragua	Mia TA	.58	.20	Frequently	.10
Lima, Peru	Mia P	1.05	.32	Dly	.15
"	No P	1.24	.43	Dly	.15
"	Bro P	1.24	.43	Dly	.15
"	Lgs P	1.46	.43	Dly	.15
Limon, Costa Rica	Mia TA	.64	.20	Frequently	.10
Loja, Ecuador	Mia P	.89	.32	W	.15
"	No P	1.09	.43	T	.15
"	Bro P	1.12	.43	T	.15
"	Lgs P	1.36	.43	M	.15
Lorica, Colombia	Mia P	.66	.32	Su,T,W	.15
"	No P	1.03	.32	F	.15
"	Bro P	1.13	.43	F	.15
"	Lgs P	1.40	.43	Th	.15
Maceio, Brazil	Mia P	1.26	.43	Dly	.20
"	No P	1.51	.43	Dly	.20
"	Bro P	1.56	.43	Dly	.20
"	Lgs P	1.86	.43	Dly	.20
Magangue, Colombia	Mia P	.65	.32	Su,T,W	.15
"	No P	1.02	.32	Su,M,F	.15
"	Bro P	1.12	.43	Su,M,F	.15
"	Lgs P	1.39	.43	Su,Th,Sa	.15
Managua, Nicaragua	Mia P	.68	.32	Dly	.10
"	No P	.64	.32	Twice Dly	.10
"	Bro P	.68	.32	Twice Dly	.10
"	Lgs P	1.00	.32	Dly	.10
Manaos, Brazil	Mia P	1.24	.43	Su,W,Th	.20
"	No P	1.48	.43	M,T,F	.20
"	Bro P	1.54	.43	M,T,F	.20
"	Lgs P	1.79	.43	S,M,Th	.20
Manizales, Colombia	Mia P	.81	.32	Dly	.15
"	No P	1.04	.32	Dly	.15
"	Bro P	1.07	.43	Dly	.15
"	Lgs P	1.34	.43	Dly	.15
Manta, Ecuador	Mia P	.88	.32	M,Th,Sa	.15
"	No P	1.07	.43	Su,W,F	.15
"	Bro P	1.10	.43	Su,W,F	.15
"	Lgs P	1.35	.43	Tu,Th,Sa	.15
Manzanillo, Cuba	Mia P	.22	.15	Dly	.08
Maracaibo, Venezuela	Mia P	.59	.32	Dly	.15
"	Mia K	.66	.32	Dly	.15
"	No P	.93	.43	Dly	.15
"	Bro P	1.00	.32	Dly	.15
"	Lgs P	1.27	.43	Dly	.15
Maturin, Venezuela	Mia P	.74	.32	Dly	.15
"	No P	1.04	.32	Dly	.15
"	Bro P	1.15	.43	Dly	.15
"	Lgs P	1.38	.43	Dly	.15
Mazatlan, Mexico	Bro P	.47	.32	Dly	.08
"	Lgs P	.45	.17	Dly	.08
Medellin, Colombia	Mia P	.75	.32	Dly	.15
"	No P	1.02	.32	Dly	.15
"	Bro P	1.06	.32	Dly	.15
"	Lgs P	1.35	.43	Dly	.15
Mendoza, Argentina	Mia P	1.41	.43	Su,M,W,Th, Sa	.20
"	No P	1.52	.43	Su,T,Th,F,Sa	.20
"	Bro P	1.53	.43	Su,T,Th,F,Sa	.20
"	Lgs P	1.77	.43	M,W,Th,F,Sa	.20
Merida, Mexico	Mia P	.35	.17	Twice Dly	.08
"	No P	.31	.17	Twice Dly	.08
"	Bro P	.53	.32	Dly	.08
"	Lgs P	.92	.32	Dly	.08
"	Dl B	.56	.32	Dly	.08
"	Fv B	.56	.32	Dly	.08
"	Lo B	.42	.32	Dly	.08
"	Sa B	.49	.32	Dly	.08
Mexicali, Mexico	Lgs P	.12	.15	Dly	.08
Mexico City, Mexico	Mia P	.64	.32	Twice Dly	.08
"	No P	.61	.32	Dly	.08
"	Dl B	.36	.17	Dly	.08
"	Lgs A	.50	.15	Dly	.08
"	Lgs P	.64	.27	Dly	.08
"	Lo B	.24	.17	Dly	.08
"	Fv B	.40	.17	Dly	.08
"	Fv A	.26	.15	Dly	.08
"	Eo A	.29	.15	Dly	.08
"	Sa A	.20	.15	Dly	.08
"	Sa B	.30	.17	Dly	.08
Minatitlan, Mexico	Mia P	.51	.32	Dly	.08
"	No P	.47	.32	Dly	.08
"	Bro P	.36	.17	Dly	.08
"	Lgs P	.79	.32	Dly	.08
Monteria, Colombia	Mia P	.66	.32	Dly	.15
"	No P	1.03	.32	Dly	.15
Monteria (Cont.)	Bro P	1.13	.43	Dly	.15
"	Lgs P	1.40	.43	Dly	.15
Monterrey, Mexico	Fv A	.16	.15	Dly	.08
"	Fv B	.27	.17	Dly	.08
"	Dl B	.27	.17	Dly	.08
"	Eo A	.21	.15	Dly	.08
"	Lgs A	.42	.15	Dly	.08
"	Lo B	.13	.15	Dly	.08
"	Sa A	.10	.15	Dly	.08
"	Sa B	.20	.15	Dly	.08
Montevideo, Uruguay	Mia P	1.55	.43	Twice Dly	.20
"	No P	1.65	.43	Dly	.20
"	Bro P	1.68	.43	Dly	.20
"	Lgs P	1.98	.43	Dly	.20
Mossoro, Brazil	Mia P	1.24	.43	T	.20
"	No P	1.46	.43	Sa	.20
"	Bro P	1.53	.43	Sa	.20
"	Lgs P	1.76	.43	F	.20
Nassau, Bahamas	Mia P	.10	.15	Twice Dly	.10
Natal, Brazil	Mia P	1.25	.43	Dly	.20
"	No P	1.48	.43	Dly	.20
"	Bro P	1.54	.43	Dly	.20
"	Lgs P	1.80	.43	Dly	.20
Nuevo Laredo, Mexico	Dl B	.22	.17	Dly	.08
"	Fv B	.22	.17	Dly	.08
"	Sa B	.15	.15	Dly	.08
"	Lo B	.08	.05	Dly	.08
Oaxaca, Mexico	Mia P	.71	.32	Dly except Sa	.08
"	No P	.68	.32	Dly except F	.08
"	Bro P	.30	.17	Dly except Sa	.08
"	Lgs P	.76	.32	Dly except F	.08
Oruro, Bolivia	Mia P	1.24	.43	M,T,W,F,Sa	.20
"	No P	1.33	.43	M,T,Th,F,Sa	.20
"	Bro P	1.33	.43	M,T,Th,F,Sa	.20
"	Lgs P	1.55	.43	S,M,W,Th,F	.20
Otu, Colombia	Mia P	.77	.32	Su,M,T,W,Th	.15
"	No P	1.13	.43	Su,M,T,W,Sa	.15
"	Bro P	1.17	.43	Su,M,T,W,Sa	.15
"	Lgs P	1.46	.43	Su,M,T,F,Sa	.15
Palmar, Costa Rica	Mia Ta	.65	.20	Frequently	.10
Panama City, Panama	Mia P	.55	.32	Dly	.10
"	No P	.82	.32	Dly	.10
"	Bro P	.86	.32	Twice Dly	.10
"	Lgs P	1.15	.43	Dly	.10
Para, Brazil (See Belem)					
Paramaribo, Sur	Mia P	.92	.32	Twice Dly	.15
"	Mia K	1.14	.43	Su,Th	.15
"	No P	1.18	.43	Dly	.15
"	Bro P	1.25	.43	Dly	.15
"	Lgs P	1.48	.43	Dly	.15
Parnahyba, Brazil	Mia P	1.19	.43	Sa	.20
"	No P	1.38	.43	Th	.20
"	Bro P	1.48	.43	Th	.20
"	Lgs P	1.67	.43	W	.20
Parrita, Costa Rica	Mia Ta	.62	.20	Frequently	.10
Pasto, Colombia	Mia P	.92	.32	Dly	.15
"	No P	1.15	.43	Dly	.15
"	Bro P	1.18	.43	Dly	.15
"	Lgs P	1.45	.43	Dly	.15
Pato, Colombia	Mia P	.73	.32	Su,T,W	.15
"	No P	1.10	.43	M,T,Sa	.15
"	Bro P	1.20	.43	M,T,Sa	.15
"	Lgs P	1.47	.43	Su,M,F	.15
Point a Pitre, Guadeloupe	Mia P	.80	.32	Dly	.10
"	No P	1.03	.32	Dly	.10
"	Bro P	1.06	.32	Dly	.10
"	Lgs P	1.33	.43	Dly	.10
Popayan, Colombia	Mia P	.80	.32	Dly	.15
"	No P	1.03	.32	Dly	.15
"	Bro P	1.06	.32	Dly	.15
"	Lgs P	1.33	.43	Dly	.15
Port au Prince, Haiti	Mia P	.35	.17	Four Dly	.10
"	Mia K	.38	.17	M,Th	.10
Port of Spain, Trinidad	Mia P	.74	.32	Thrice Dly	.10
"	Mia K	.89	.32	Su,W,Th	.10
"	Mia Ta	.74	.20	Frequently	.10
"	No P	1.04	.32	Dly	.10
"	Bro P	1.18	.43	Dly	.10
"	Lgs P	1.41	.43	Dly	.10
Porto Alegre, Brazil	Mia P	1.51	.43	Twice Dly	.20
"	No P	1.69	.43	Dly	.20
"	Bro P	1.84	.43	Dly	.20
"	Lgs P	2.14	.43	Dly	.20
Porto Armuelles, Panama	Mia Ta	.70	.20	Frequently	.10
Porto Carbezas, Nic.	Mia Ta	.50	.20	Frequently	.10
Preston, Cuba	Mia P	.24	.15	Dly	.08
Puebla, Puebla	Dl B	.41	.17	Dly	.08
"	Fu B	.41	.17	Dly	.08
"	Lo B	.27	.17	Dly	.08
"	Sa B	.34	.17	Dly	.08
Puerto Suares, Bolivia	Mia P	1.36	.43	Sa	.20
"	No P	1.48	.43	F	.20
"	Bro P	1.50	.43	F	.20
"	Lgs P	1.69	.43	Th	.20
Puerto Wilches, Col.	Mia P	.75	.32	Su,T,W	.15
"	No P	1.12	.43	Su,M,F	.15
"	Bro P	1.20	.43	Su,M,F	.15
"	Lgs P	1.49	.43	Su,Th,Sa	.15
Puntarenas, Costa Rica	Mia Ta	.63	.20	Frequently	.10
Quibdo, Ecuador	Mia P	.77	.32	Su	.15
"	No P	1.14	.43	F	.15
"	Bro P	1.19	.43	F	.15
"	Lgs P	1.46	.43	Th	.15
Quito, Ecuador	Mia P	.89	.32	Dly	.15
"	No P	1.09	.43	Dly	.15
"	Bro P	1.09	.43	Dly	.15
"	Lgs P	1.36	.43	Dly	.15
Recife (Pernambuco) Brazil	Mia P	1.26	.43	Dly	.20
"	No P	1.50	.43	Dly	.20

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Recife—(Cont.)	Bro P	1.56	.43	Dly	.20
"	Lgs P	1.84	.43	Dly	.20
Remedios, Colombia	Mia P	.79	.32	Su,M,T,W,Th	.15
"	No P	1.15	.43	Su,M,T,W,Sa	.15
"	Bro P	1.19	.43	Su,M,T,W,Sa	.15
"	Lgs P	1.48	.43	Su,M,T,F,Sa	.15
Rio de Janeiro	Mia P	1.41	.43	Twice Dly	.20
"	Mia Ta	1.41	.43	Frequently	.20
"	No P	1.54	.43	Dly	.20
"	Bro P	1.64	.43	Dly	.20
"	Lgs P	1.94	.43	Dly	.20
Robore, Bolivia	Mia P	1.36	.43	Sa	.20
"	No P	1.48	.43	F	.20
"	Bro P	1.50	.43	F	.20
"	Lgs P	1.69	.43	Th	.20
Salinas, Ecuador	Mia P	.86	.32	Th,Sa	.15
"	No P	1.06	.32	W,F	.15
"	Bro P	1.10	.43	W,F	.15
"	Lgs P	1.35	.43	T,Th	.15
Salta, Argentina	Mia P	1.30	.43	Su,T,F	.20
"	No P	1.45	.43	M,Th,Sa	.20
"	Bro P	1.45	.43	M,Th,Sa	.20
"	Lgs P	1.64	.43	Su,W,F	.20
San Ignacio, Bolivia	Mia P	1.33	.43	Sa	.20
"	No P	1.46	.43	F	.20
"	Bro P	1.48	.43	F	.20
"	Lgs P	1.64	.43	Th	.20
San Jose, Bolivia	Mia P	1.35	.43	Sa	.20
"	No P	1.48	.43	F	.20
"	Bro P	1.49	.43	F	.20
"	Lgs P	1.67	.43	Th	.20
San Jose, Costa Rica	Mia P	.68	.32	Dly	.10
"	Mia Ta	.60	.20	Frequently	.10
"	No P	.71	.32	Dly	.10
"	Bro P	.74	.32	Twice Dly	.10
"	Lgs P	1.06	.32	Dly	.10
San Juan, Puerto Rico	Mia P	.53	.32	Six Dly	.08
San Marcos, Colombia	Mia P	.67	.32	T,Th	.15
"	No P	1.04	.32	M,W	.15
"	Bro P	1.14	.43	M,W	.15
"	Lgs P	1.41	.43	Su,T	.15
San Pedro, Sula, Hond.	Mia Ta	.53	.20	Frequently	.10
San Salvador, El Salvador	Mia P	.57	.32	Dly	.10
"	Mia Ta	.55	.20	Frequently	.10
"	No P	.53	.32	Twice Dly	.10
"	Bro P	.57	.32	Dly	.10
"	Lgs P	.94	.32	Dly	.10
Santa Cruz, Bolivia	Mia P	1.28	.43	M,W,Sa	.20
"	No P	1.43	.43	Su,T,F	.20
"	Bro P	1.43	.43	Su,T,F	.20
"	Lgs P	1.59	.43	M,Th,Sa	.20
Santa Marta, Colombia	Mia P	.59	.32	Dly	.15
"	No P	.96	.32	Dly	.15
"	Bro P	1.06	.32	Dly	.15
"	Lgs P	1.33	.43	Dly	.15
Santiago, Chile	Mia P	1.38	.43	Dly except T	.20
"	No P	1.51	.43	Dly except M	.20
"	Bro P	1.51	.43	Dly except M	.20
"	Lgs P	1.75	.43	Dly except S	.20
Santiago, Cuba	Mia P	.24	.15	Thrice Dly	.08
Sao Luiz, Brazil	Mia P	1.16	.43	Dly	.20
"	No P	1.38	.43	Dly	.20
"	Bro P	1.43	.43	Dly	.20
"	Lgs P	1.62	.43	Dly	.20
Sao Paolo, Brazil	Mia P	1.44	.43	Twice Dly	.20
"	No P	1.56	.43	Dly	.20
"	Bro P	1.69	.43	Dly	.20
"	Lgs P	1.99	.58	Dly	.20
Sao Salvador, Brazil (Bahia)	Mia P	1.28	.43	Dly	.20
"	No P	1.54	.43	Dly	.20
"	Bro P	1.64	.43	Dly	.20
"	Lgs P	1.94	.43	Dly	.20
St. Christopher, N.W.I.	Mia K	.96	.35	Sa	.10
St. Lucia, B.W.I.	Mia P	.71	.32	T,Th,Sa	.10
"	No P	1.00	.32	F	.10
"	Bro P	1.16	.43	F	.10
"	Lgs P	1.39	.43	Th	.10
St. Martin, N.W.I.	.....	.88	.32	Sa	.10
St. Thomas, V.I.	Mia P	.55	.32	Twice Dly	.08
Segovia, Colombia	Mia P	.79	.32	Su,M,T,W,Th	.15
"	No P	1.15	.43	Su,M,T,W,Sa	.15
"	Bro P	1.19	.43	Su,M,T,W,Sa	.15
"	Lgs P	1.48	.43	Su,M,T,F,Sa	.15
Sincelejo, Colombia	Mia P	.67	.32	Dly	.15
"	No P	1.04	.32	Dly	.15
"	Bro P	1.14	.43	Dly	.15
"	Lgs P	1.41	.43	Dly	.15
Suina, Nicaragua	Mia Ta	.54	.20	Frequently	.10
Talara, Peru	Mia P	.90	.32	Dly	.15
"	No P	1.10	.43	Dly	.15
"	Bro P	1.12	.43	Dly	.15
"	Lgs P	1.36	.43	Dly	.15
Tampico, Mexico	Bro P	.15	.15	Dly	.08
"	Lgs P	.76	.32	Dly	.08
Tapachula, Mexico	Mia P	.57	.32	Dly	.08
"	No P	.53	.32	Dly	.08
"	Bro P	.49	.32	Dly	.08
"	Lgs P	.88	.32	Dly	.08
Tegucigalpa, Honduras	Mia P	.62	.32	Dly	.10
"	Mia Ta	.50	.20	Frequently	.10
"	No P	.59	.32	Dly	.10
"	Bro P	.62	.32	Dly	.10
"	Lgs P	.97	.32	Dly	.10
Tela, Honduras	Mia Ta	.53	.20	Frequently	.10
Tucuman, Argentina	Mia P	1.34	.43	Su,T,F	.20
"	No P	1.48	.43	M,Th,Sa	.20
"	Bro P	1.49	.43	M,Th,Sa	.20
Tucuman, Arg.—(Cont.)	Lgs P	1.68	.43	Su,W,F	.20
Tumaco, Colombia	Mia P	.91	.32	Su	.15
"	No P	1.14	.43	F	.15
"	Bro P	1.17	.43	F	.15
"	Lgs P	1.44	.43	Th	.15
Tuquerres, Colombia	Mia P	.92	.32	Dly	.15
"	No P	1.15	.43	Dly	.15
"	Bro P	1.18	.43	Dly	.15
"	Lgs P	1.45	.43	Dly	.15
Turbo, Colombia	Mia P	.70	.32	M,T,F,Sa	.15
"	No P	1.02	.32	Su,M,Th,F	.15
"	Bro P	1.06	.32	Su,M,Th,F	.15
"	Lgs P	1.35	.43	Su,W,Th,Sa	.15
Tuxpan, Mexico	Bro P	.18	.15	Dly	.08
"	Lgs P	.74	.32	Dly	.08
Tuxtla, Gutierrez, Mexico	Mia P	.62	.32	Dly except Sa	.08
"	No P	.59	.32	Dly except F	.08
"	Bro P	.42	.17	Dly except Sa	.08
"	Lgs P	.83	.32	Dly except F	.08
Uyuni, Bolivia	Mia P	1.26	.43	T,Th	.20
"	No P	1.38	.43	M,Th	.20
"	Bro P	1.38	.43	M,Th	.20
"	Lgs P	1.56	.43	Su,W	.20
Varadero, Cuba	Mia P	.18	.15	Dly	.08
Veracruz, Mexico	Mia P	.57	.32	Dly	.08
"	No P	.53	.32	Dly	.08
"	Bro P	.28	.17	Dly	.08
"	Lgs P	.76	.32	Dly	.08
"	Dl B	.42	.32	Dly	.08
"	Fv B	.42	.32	Dly	.08
"	Lo B	.28	.17	Dly	.08
"	Sa B	.35	.17	Dly	.08
Victoria, Brasil	Mia P	1.41	.43	Th,Sa	.20
"	No P	1.59	.43	T,Th	.20
"	Bro P	1.73	.43	T,Th	.20
"	Lgs P	2.03	.43	M,W	.20
Victoria de las Tunas, Cuba	Mia P	.22	.15	Dly	.08
Villahermosa, Mexico	Mia P	.47	.32	Dly	.08
"	No P	.43	.17	Dly	.08
"	Bro P	.40	.17	Dly	.08
"	Lgs P	.83	.32	Dly	.08
Villavicencio, Col.	Mia P	.81	.32	Dly	.15
"	No P	1.18	.43	Dly	.15
"	Bro P	1.15	.43	Dly	.15
"	Lgs P	1.42	.43	Dly	.15

ATLANTIC ROUTES

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Amsterdam, Netherlands	NykAO	1.55	.25	T	.30
Athens, Greece	NykTW	2 41	.25	M,W	.30
"	WaTW	2 44	.25	M,W	.30
"	BwTW	2 39	.25	M,W	.30
"	PhTW	2 42	.25	M,W	.30
"	CgTW	2 54	.25	F	.30
Berlin, Germany	NykAO	1.80	.15	T	...
"	WaAO	1.86	.15	T	...
Bolama, Portuguese Guinea, Africa	Nyk P	2.66	.43	Fortnightly	.50
Botwood Newfoundland	Nyk P	.81	.32	Su,W,F	.15
Cairo, Egypt	NykTW	2.56	.25	M,W	.70
"	WaTW	2 59	.25	M,W	.70
"	BwTW	2 54	.25	M,W	.70
"	PhTW	2 57	.25	M,W	.70
"	CgTW	2 64	.25	F	.70
Copenhagen, Denmark	NykAO	1 90	.25	F	.30
Dakar, Senegal, Africa		2.36	.43	T	.45
Foynes, Eire via Botwood	Nyk P	1.78	.43	Su,W,F	.30
Frankfort-am-Main, Germany	NukAO	1.67	.15	T	...
"	WaAO	1.73	15	T	...
Geneva, Switzerland	NykTW	2.10	25	T	.30
Hamilton, Bermuda	Nyk P	.37	17	T,W,F,Sa	.10
Leopoldville, Belg. Congo	Nyk P	3.63	.43	Alt. Su	.60
Lisbon, Portugal	Nyk P	1.28	.43	T,F	.30
"	NykTW	2.03	25	W	.30
"	WaTW	2.06	25	W	.30
"	BwTW	2.01	25	W	.30
"	PhTW	2.04	25	W	.30
London, England	Bw AO	1.39	.25	T	.30
"	CgAO	1.66	.25	M	.30
"	NykAO	1.45	25	Su,T,W,Th,Sa	.30
"	Nyk P	1.17	43	M,W,F,Sa	.30
"	PhAO	1.48	.25	F	.30
"	WaAO	1.51	.25	W,F	.30
Madrid, Spain	NykTW	2.13	.25	W	.30
"	WaTW	2.16	.25	W	.30
"	BwTW	2.11	.25	W	.30
"	PhTW	2.14	.25	W	.30
Monrovia (Fisherman's Lake), Liberia	Nyk P	2.67	.43	T	.50
Oslo, Norway	NykAO	1.88	.25	T	.30
Paris, France	BwTW	2.01	.25	Th	.30
"	NykTW	2.03	.25	Dly	.30
"	PhTW	2.04	.25	M	.30
"	WaTW	2.06	.25	Dly	.30
"	CgTW	2.23	.25	F	.30
Rome, Italy	NykTW	2.24	.25	M,W	.30
"	WaTW	2.27	.25	M,W	.30
"	BwTW	2.22	.25	M,W	.30
"	PhTw	2.25	.25	M,W	.30
"	CgTW	2.41	.25	F	.30
Scotland via Foynes*	Nyk P	(Rates	on	Application)	.30
Shediac, N. B.	Nyk P	.51	17	Su,W,F	.08
Shannon, Eire	Bw AO	1.29	.25	T	.30
"	BwTW	1.76	.20	Th	.30
"	CgAO	1.55	.25	M	.30
Shannon, Eire—(Cont.)	CgTW	2.03	.25	F	.30
"	NykAO	1.35	.25	Su,T,W,Th,Sa	.30
"	Nyk P	1.09	.43	M,W,F,Sa	.30
"	NykTW	1.78	.25	Dly	.30
"	Ph AO	1.38	.25	F	.30
"	Ph TW	1.79	.25	M	.30
"	Wa AO	1.41	.25	W,F	.30
"	WaTW	1.81	.25	Dly	.30
Stockholm, Sweden	NykAO	1.99	.25	F	.30
Wales via Foynes*	Nyk P	(Rates	on	Application)	.30

ALASKA ROUTES

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Aniak Alaska	Ste P	.83	.32	Sa	.30
Bethel "	Ste P	.86	.32	Sa	.30
Burwash Landing "	Ste P	.55	.32	Dly	.30
Fairbanks "	Ste P	.68	.32	Dly	.30
Flat "	Ste P	.79	.32	Sa	.30
Galena "	Ste P	.77	.32	S,T,Th	.30
Juneau "	Ste P	.43	.17	Thrice Dly	.30
Ketchikan "	Ste P	.33	.17	Thrice Dly	.30
Lake Minchumina "	Ste P	.73	.32	Sa	.30
McGrath "	Ste P	.76	.32	Sa	.30
Moses Point "	Ste P	.82	.32	Su,T,Th	.30
Nome "	Ste P	.85	.32	S,T,Th	.30
Tanacross "	Ste P	.62	.32	Dly	.30
Tanana "	Ste P	.73	.32	Dly	.30
Whitehorse, Canada	Ste P	.49	.32	Dly	.30

CANADIAN ROUTES

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Calgary, Alb.	Nyk T	1.02	†	Dly	.30
Edmonton, Alb.	Nyk T	1.06	†	Dly	.30
Halifax, N. S.	Nyk T	.31	†	Dly	.30
Lethbridge, Alb.	Nyk T	.84	†	Dly	.30
"	Cub W	.04	†	Dly	.30
London, Ont.	Nyk T	.18	†	Dly	.30
Moncton, N. B.	BbNE	.08	†	Dly	.30
Montreal, Que.	Nyk C	.12	†	Dly	.30
"	Nyk T	.12	†	Dly	.30
"	Jg NE	.04	†	Dly	.30
North Bay, Ont.	Nyk T	.22	†	Dly	.30
Ottawa, Ont.	Nyk T	.16	†	Dly	.30
"	Nyk C	.16	†	Dly	.30
Regina, Sask.	Nyk T	.80	†	Dly	.30
St. John, N. B.	Nyk T	.31	†	Dly	.30
St. Johns, N. F.	Nyk T	.58	†	Dly	.30
Sydney, N. S.	Nyk T	.36	†	Dly	.30
Toronto, Ont.	Nyk A	.16	†	Dly	.30
"	Nyk T	.12	†	Dly	.30
Vancouver, B. C.	Ste U	.03	†	Dly	.30
"	Nyk T	.96	†	Dly	.30
Windsor, Ont.	Nyk A	.20	†	Dly	.30
"	Cg A	.12	†	Dly	.30
"	Nyk T	.20	†	Dly	.30
Winnipeg, Man.	GfNW	.04	†	Dly	.30
"	Nyk T	.60	†	Dly	.30

PACIFIC ROUTES

Destination	U. S. Gateway & Airline	RATES (See Note) Per Lb.	Per $100 Value	Depart	Mail per ½ Oz.
Auckland, N. Z.	Lgs P	2.14	.43	Sa	.50
"	Sf P	2.14	.43	Sa	.50
Canton Island	Lgs P	1.28	.43	Sa	.50
"	Sf P	1.28	.43	Sa	.50
Honolulu, T. H.	Sf P	.71	.32	Dly	.30
"	Lgs P	.71	.32	Thrice Wkly	.30
Suva	Lgs P	1.61	.43	Sa	.50
"	Sf P	1.61	.43	Sa	.50
Noumea	Lgs P	1.83	.43	Sa	.50
"	Sf P	1.83	.43	Sa	.50

OFF-LINE SERVICE—EUROPE

Destination	Connecting Point and Airline	RATES (See Note) Per Lb.	Min. Charge	Depart	Mail per ½ Oz.
Brussels, Belgium	London P	.12	.52	.....	.30
Geneva, Switzerland	London P	.31	1.36	.....	.30
Goteborg, Sweden	London P	.45	2.00	.....	.30
Paris, France	London P	.15	.64	.....	.30
"	Shannon TW	.46	...	.....	.30
Stockholm, Sweden	London P	.54	2.40	.....	.30
Zurich, Switzerland	London P	.33	1.4	.....	.30

Note: Pan American Airways requires the prepayment of all charges, plus a fixed off-line deposit to cover, costs of transshipment and reforwarding to final destination of the shipment. This off-line deposit consists of poundage charges from London to final destination of shipment, plus transshipment bonded entry fee in England, and trucking charge to airport of despatch in England. Transshipment bonded entry fee in England is as follows: one package or first package of a lot shipment—$1.80; each additional package—$.32; excess valuation charge on shipments valued for carriage in the airwaybill in excess of U.S. $400, for each additional $400 (over the first $400)—$.32. Trucking charge to airport of despatch in England is $.02 per pound, with no minimum charge.